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Article Multi-Objective Optimal Design of a Hydrogen Supply Chain Powered with Agro-Industrial Wastes from the Sugarcane Industry: A Mexican Case Study

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Abstract: This paper presents an optimization modeling approach to support strategic planning for designing hydrogen supply chain (HSC) networks. The energy source for hydrogen production is proposed to be electricity generated at Mexican sugar factories. This study considers the utilization of existing infrastructure in strategic areas of the country, which brings several advantages in terms of possible solutions. This study aims to evaluate the economic and environmental implications of using biomass wastes for energy generation, and its integration to the national energy grid, where the problem is addressed as a mixed-integer linear program (MILP), adopting maximization of annual profit, and minimization of greenhouse gas emissions as optimization criteria. Input data is provided by sugar companies and the national transport and energy information platform, and were represented by probability distributions to consider variability in key parameters. Independent solutions show similarities in terms of resource utilization, while also significant differences regarding economic and environmental indicators. Multi-objective optimization was performed by a genetic algorithm (GA). The optimal HSC network configuration is selected using a multi-criteria decision technique, i.e., TOPSIS. An uncertainty analysis is performed, and main economic indicators are estimated by investment assessment. Main results show the trade-off interactions between the HSC elements and optimization criteria. The average internal rate of return (IRR) is estimated to be 21.5% and average payback period is 5.02 years.

Keywords: sugarcane bagasse; hydrogen energy; electrolysis; MILP; multi-criteria optimization; genetic algorithm; uncertainty; Monte Carlo simulation; TOPSIS

1. Introduction

In recent years, the popularity of hydrogen as a promising sustainable energy carrier has increased significantly to contribute to clean energy transition [1]. In particular, hydrogen has a noticeable role to play in the transport sector which requires large amounts of clean energy as an enabler of deep decarbonization of this difficult to abate sector. One of the advantages of using hydrogen is the availability of different production processes [2]. The biomass contained in some agro-industrial wastes can provide enough energy to be used for hydrogen production in a variety of processes [3]. Several paths can be followed in



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Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). biomass resource exploitation, among which the selection of the most appropriate conversion technology is challenging. Agro-industrial wastes are commonly known as residues that offer little benefit to their producers, so their recovery can be an option to investigate. The use of agro-industrial waste for energy production can be an alternative end-of-life for these resources by creating sustainable and renewable systems that minimize pollutant emissions. The cogeneration of electricity and thermal power could provide energy autonomy for these companies and additional income from the sale of their energy overflows, while their waste gets a second use. Applying the necessary technologies for efficient use of the energy generated from renewable resources requires a comprehensive vision that includes the assessment of several factors for decision support at different levels [4]. The objective of this work is thus to include these options in the planning and design of a hydrogen supply chain network.

The electrical energy used for hydrogen production is generated with agro-industrial wastes in 50 sugar factories located in Mexico, where steam generators are powered by burning sugar cane bagasse. The electricity generated is used for self-consumption for the sugar companies and the excess is often sold to the national grid, but is commonly wasted because of low demand; thus, an HSC network where the excess energy can be exploited may turn out to be convenient. In the proposed model, the behavior of the electricity production systems is modeled using probability distributions, among other model parameters. The major contribution of this study is the integration of a multi-objective optimization model using a genetic algorithm (GA) with a hydrogen production system generated from agro-industrial waste for mobility purposes, integrating the proposed network with already existing infrastructure from the national energy industry. The model is evaluated with energy prices and geographic information from different regions across the country. (GA). The obtained solutions offer a variety of options for setting the HSC since a multi-criteria approach is adopted to optimize economic and environmental objectives simultaneously.

The presented mathematical model is inspired on three previously built formulations, whereby Parker [5] adopts the profit maximization approach for its flexibility in terms of resource utilization, and de León Almaráz [4] considers global warming criteria, and its mathematical formulation for transport and storage in an HSC is adopted by this study. Finally, Rico Contreras [6] presents the mathematical model for generation of electricity at sugar mills available for hydrogen production; integrating these approaches contributes to the formulation of the mixed integer linear program (MILP), and significant changes were made to adapt the mathematical formulation to the case examined in this study.

The optimal HSC network configuration is selected using a multi-criteria decisionmaking technique (MCDM). Due to the type of problem (input data), a multi-attribute decision-making (MADM) method is adopted. This type of technique calculates the distance between each alternative and a central point. VIKOR and TOPSIS methods were considered (differing by criteria normalization procedure). Both techniques use the CP method that seeks to obtain the closest alternative from the hypothetical optimal solution. The TOPSIS method was selected since it considers the distance to the ideal solution and the distance to the non-ideal solution, while VIKOR only considers the distance to the ideal solution.

2. Literature Review

The literature review identifies the tools, technologies, resources, and other important factors to consider when designing the hydrogen supply chain (HSC) for mobility purposes. The reviewed works were selected based on similar studies with MILP models and the main scientific objective regarding the design of HSC networks. A variety of case studies were analyzed to determine the most appropriate research path given the actual conditions of the field of study. The classification of the relevant studies is based on the objective functions, agro-industrial waste, raw materials, production technologies (alkaline / Proton Exchange Membrane (PEM) electrolysis) and the region where the methodology is implemented.

A review of the different decision levels for HSC is presented in Azzaro C. et al. [7] on the different components related to hydrogen production, transportation, and distribution.

More than 40 authors contribute to a compilation of multiple case studies, where the most recent methodologies used for modeling the HSC supply chain are presented for design, planning and operation strategies, providing diverse tools that allow the design of complex systems using mathematical models involving economic, environmental and risk criteria.

Jiyong K. et al. [8] proposed a methodology for HSC infrastructure design including production, storage, and transportation with a generic optimization-based model. The network design is formulated as a MILP to identify the optimal configuration of the supply chain from various alternatives. The goal was to consider not only cost efficiency, but safety criteria as well. Since these two aspects are contradictory, multi-objective optimization techniques were required to find practical solutions. With this approach, the effects of uncertainty in demand can also be analyzed, and deterministic and stochastic analysis methods were compared.

The pioneering work presented in A. Almansoori and N. Shah [9] emphasizes the challenges of HSC design focused on three main factors: the presence of various links in the supply chain (including local hydrogen distribution and refueling stations), the high level of interaction between the components of the supply chain and their subsystems, and the uncertainty in hydrogen demand. In this work, the growing uncertainty in the variation of hydrogen demand in the long term was integrated into an existing generic optimization model, using a scenario-based approach. For both cases, the most feasible solution involves a centralized production with small or medium-sized storage facilities and distribution through tanker trucks. The performance of the model was evaluated using sensitivity and risk analysis.

In their latest work, Güler MG et al., 2020 [10] presented a design for an HSC in Turkey for 2021–2050 using a MILP modeling approach. A mathematical optimization model was adopted to evaluate the objective functions in Turkey. The results show decentralized production as one feasible alternative to fulfill the demand, and the local production rate exhibited a significant increase from 12% to 48% by the end of the planning horizon, revealing future considerations that must be considered. The analysis revealed that almost all regions either produce or import hydrogen, but do not do both.

The work by P. Gabrielli et al., 2020 [11] concerns the optimal design of a low-carbon Swiss HSC. The infrastructure design is performed by solving an optimization problem that determines the hydrogen, biomass, and CO_2 network configuration with a focus on production technologies. A national scale case study was analyzed to derive specific guidelines concerning the design of the HSC deploying carbon capture and storage. The impact of relevant design parameters was assessed, such as the location of CO_2 storage facilities, the techno-economic characteristics of CO_2 capture technologies and network losses. The study highlights the benefits of biomass and carbon capture and storage for decarbonizing HSC networks compared to the use of electrolysis for hydrogen production due to the high carbon intensity of the electricity mix.

C. Quarton and S. Samsatli, 2020 [12] present an optimization framework to determine how carbon dioxide and hydrogen technologies could fit into existing value chains in the energy and chemicals sector, analyzing how effectively these technologies can contribute to meet the climate change goals. The first study concerning the modeling and optimization of an integrated value chain for carbon dioxide and hydrogen is performed, providing assessment of the role of carbon capture, utilization and storage (CCUS), and hydrogen technologies. The results showed opportunities for CCUS to decarbonize existing power generation capacity and emphasize the need of renewable energy and hydrogen to achieve lower cost decarbonization and flexibility in the long term. The importance of negative emissions policies to encourage investors was also discussed.

An optimization-oriented review regarding HSC design is presented by Lei Li et al., 2019 [13]. Some drawbacks and missing aspects in the literature are identified, and key components of the HSC are presented. Models are classified based on several model features. It is highlighted that profit maximization has received less attention compared

to other optimization criteria, and only two of the references reported profit as the HSC performance measure.

A social cost–benefit assessment is performed by Ochoa R. et al., 2020 as post-optimal analysis for HSC design and deployment [14]. The sequential application of an optimization strategy employing genetic algorithms and a multi-criteria decision-making tool at first determine the optimal solution for the HSC network design problem. The evaluation is then performed by a social cost–benefit analysis (SCBA) to estimate the impact of hydrogen mobility deployment on social welfare. A subsidy policy scenario was implemented where results showed that CO₂ abatement dominates the externalities, while platinum was the second largest externality.

Husna I. et al., 2016 [15] present a comparative study between biomass burning and gasification techniques. It is highlighted that direct burning of biomass and co-firing with coal is most used since it is the most economic convenient decision for the biomass power plant, while little plant modifications are required. On the gasification of biomass field, some points are made highlighting the benefits of chemical recovery to produce higher process steam and electricity efficiencies, reducing capital cost compared to conventional technologies.

Loong Lam H. et al., 2013 [16] proposed a methodological framework for designing waste-to-energy supply chains that considers efficient resources management and reduction of greenhouse gas emissions. A two-stage optimization model was developed, with MILP being used in both stages. Different technologies were considered for the whole exploitation of the resources in alternative forms. It was concluded that the green strategy adopted contributes significantly to the amount of power generated in existing power plants. Further studies concerning the integration of the available infrastructure and alternative energy technologies are required to determine opportunities for a more efficient resource exploitation.

The study by Gumte K. et al., 2021 [17], presents a nationwide analysis of a supply chain network fed with bioenergy; the study looks forward to integrating a fraction of the obtained biofuels with traditional fuels during the 2018–2026 horizon. A MILP is built to handle multiple types of raw materials, products and transport alternatives, while performing the techno, economic and environmental analysis, looking forward to making optimal operational and design decisions. The main findings remark that 43% and above biomass feed is needed for the supply chain network to survive.

Goodarzian F. et al., 2021 [18] propose the design of a three-echelon green medicine supply chain network through a fuzzy bi-objective MILP model, considering multiple periods, products, and transportation modes. The study measures the environmental impacts derived from establishing pharmacies and hospitals, aiming to reduce greenhouse gas emissions and to control environmental pollutants. Meta-heuristic algorithms are used to solve the model, including two novel hybrid algorithms known as Hybrid Firefly Algorithm and Simulated Annealing (HFFA-SA) and Hybrid Firefly Algorithm and Social Engineering Optimization (HFFA-SEO).

A bi-objective optimization model approach is proposed by Abdolazimi O. et al., 2020 [19], where a comparison of exact and meta-heuristic methods is performed. The main objective of this study is to improve the inventory grouping based on ABC analysis. The objective functions seek to maximize the total net profit of the items in the central stock, and in different locations. The aim is to simultaneously optimize the number of inventory groups, the number of items to be assigned and the service level. Statistical analysis besides the AHP and VIKOR techniques is implemented to compare the applied optimization techniques in terms of efficiency. To solve the model in different dimensions, two exact methods (LP-metric and ε -constraint) and two meta-heuristic methods (NSGA-II and MOPSO) are applied.

A systematic literature review on multi-criteria decision making methods applied in different areas of supply chain management is conducted by Paul A. et al., 2021 [20]. A total of 106 published journal articles were analyzed. It is highlighted that MCDM methods are

commonly used for analyzing several factors of sustainable supply chain management. In this review, it is highlighted that most of the published articles combine only two MCDM methods, and integration with other techniques, such as simultaneous optimization and simulation, are missing in the literature.

A literature review presented by Tordecilla R. et al., 2021 [21], refers to existing literature on the use of simulation techniques in the formation of resilient supply chain networks (SCNs). Research opportunities have been identified for the inclusion of three criteria (such as financial, environmental, and social) during the process of marking and the application of a multidisciplinary approach to integrating metaheuristic algorithms, simulation, and machine learning methods to integrate uncertainty and dynamic conditions.

A multi-objective novel model was developed by Hosseini S. et al., 2020 [22]. The model deals with the design/reorganization of the wheat supply network, which includes different suppliers, existing warehouses, warehouse candidate locations, flour mills, and warehouses in an uncertain environment. The purpose of the proposed model is to reduce costs, non-resiliency, and the negative effects of social responsibility. The results show that considering the cost, durability, and social impact simultaneously can greatly help improve the performance of the wheat supply chain model.

The paper presented by Gital Y. et al., 2020 [23] discusses the appropriate design and planning of a biomass supply chain network that incorporates flows from poultry farms to biogas facilities. A multi-stage novel solution methodology is designed to solve the problem of designing a biomass supply chain network. Spatial information systems, as well as hierarchy processing techniques, are used to determine the candidate location of biogas infrastructure. The aim is to determine the total amount, location, and size of biogas facilities, alongside network flow, and the electricity generated. The sensitivity analysis shows both maximum distance parameters, and purchase prices have a significant impact on decisions, as well as financial benefit.

The aim of the research conducted by Rasi R. et al., 2021 [24] is to optimize economic and environmental dimensions in a sustainable supply chain (SSC) using a MILP model to incorporate both criteria simultaneously. According to the authors, the value of the work relies on the limited alternatives regarding the design and optimization of SSC networks. The research is among the first to integrate the selection of sustainable suppliers and the optimization of performance indicators. The differences between the genetic algorithms and the MILP methods can be explained by managing the issues and their various logic alternatives.

A review regarding the development of biomass-based cogeneration energy systems in Malasia is presented by Zailan R. et al., 2021 [25]. The aim of the analysis is to report recent improvements in co-firing technology using biomass in Malaysia with the optimization modeling role. The authors address technical issues concerning the key players of the technologies and the biomass supply chain, remarking the importance of biomass utilization for energy generation in regions where agro-industrial wastes are abundant.

The study presented by Nunes L. et al., 2020 [26] reviews the status of research on biomass supply chain modelling and highlights the growing importance of biomass as a renewable alternative energy source. The review identifies modeling as a critical step in improving comprehension leading to improved supply chain performance. It is said that research using supply chain models focuses on examining specific supply chain conditions, often with the aim of reducing costs.

Seung S. et al., 2020 [27] presented a study involving the development of a hydrogen supply chain optimization model using a centralized storage approach that integrates and combines the flow of different production facilities into integrated bulk storage. The results show that a hydrogen supply chain with a central storage approach improves the phase transition of the hydrogen-producing plants, while reducing the total annual cost of the network.

A techno-economic analysis review of biomass supply chain was conducted by Yuen S. et al., 2021 [28]. The study emphasizes the growing needs of biomass caused by the

increased risk of climate change. The study aims to provide an overview of the different types of methods or techniques used to assess the feasibility of biomass-based industries from a technical point of view. The study also looks forward to describing the uncertainty of the supply chain that should be included in the model test using the Malaysian case study to show the impact of this uncertainty. In total, 78% of reviewed articles chose the method of testing the mathematical model with optimization. A minority have undergone stochastic tests that include systemic uncertainty.

Rafique R. et al., 2021 [29] introduces and develops a model to design a bioenergy supply chain with the aim of minimizing the energy gap under budget and the challenges of biomass availability. The dynamic features of the model capture interactions between people, size, energy demand, biomass availability, energy consumption and the overall domestic product. The analysis highlights that the cost of further development of the bioenergy system can vary greatly during the planning horizon. Complete configuration starts as a very central system and shifts to a decentralized system divided into areas where power plants emit biofuel and provide energy locally.

Li L. et al., 2019 [30] conducted a study focusing on developing a mathematical model that encompasses the entire hydrogen supply network. The model is integrated with a hydrogen fueling station planning approach to produce a new configuration. The proposed model looks at the supply of feedstock, installation and operation facilities, the operation of transportation modes, and a system for carbon capture and storage. The proposed model can study the interactions that exist between different parts of a hydrogen supply network. Therefore, many HSC building plans are guaranteed.

From the reviewed literature, it can be concluded that further research in terms of evaluating the economic and environmental benefits of utilizing alternative energy sources and technologies in the existing energy industry infrastructure might provide the sufficient arguments to determine whether it is convenient or not to look forward to the exploitation of agricultural wastes for these means in specific regions. A summary of the literature review is presented in Table 1. We classified the relevant studies based on the adopted objective function, feedstock types (energy sources), considered hydrogen production technologies, and analyzed case studies. This study assesses the economic and environmental behavior of a power-to-hydrogen supply chain through a stochastic modelling approach, where the existing energy and biomass infrastructure is integrated on a national scale. Electricity produced by biomass combustion is already available as an energy source across the country due to the large quantities of sugarcane bagasse generated annually by agro-industrial activities and the ready-to-use infrastructure located at biomass producer facilities for energy generation and self-consumption, although a considerable part of this energy may be wasted due to the lack of synchronization of supply and demand. The results can help provide alternatives for countries that rely heavily on primary and secondary activities where biomass is widely available and where national energy autonomy is a concern.

Reference	Objective Function	Feedstock (Energy Source)	Hydrogen Production Technology	Case Study
[8]	Total cost minimization Total relative risk minimization	NG, renewable electricity	SMR, electrolysis	South Korea
[9]	Total cost minimization	NG, oil, coal, biomass, solar power	SMR, biomass and coal gasification, electrolysis	Great Britain
[10]	Total cost minimization	NG, coal, biomass, solar, wind, hydroelectric, geothermal	SMR, coal and biomass gasification, electrolysis	Turkey
[11]	Total cost minimization GWP minimization	NG, biomass, electricity	SMR, gasification, electrolysis	Swiss

Table 1. Summary of the reviewed literature with a supply chain optimization approach.

Reference	Objective Function	Feedstock (Energy Source)	Hydrogen Production Technology	Case Study
[12]	NPV maximization Emissions minimization	NG, wind power	Electrolysis	Great Britain
[14]	Total Cost minimization GWP minimization	NG, renewable electricity, nuclear power	SMR, electrolysis	France (Midi-Pyrénées)
[15]	-	Coal, biomass	Electrolysis, gasification	Malaysia
[16]	NPV maximization Transport cost minimization	Biomass	-	Malaysia

Table 1. Cont.

NG = Natural Gas, SMR = Steam Methane Reforming, GWP = Global Warming Potential, NPV = Net Present Value.

The objective of this study is to evaluate the economic and environmental implications of using biomass wastes from sugar factories for energy generation, opening the scope to a non-conventional application according to the state of the art, which implies the utilization of already existing infrastructure, at the time that a resource commonly considered as waste is exploited. The innovation value of this contribution relies on the proposal of a wastes exploitation scheme that can be escalated in a variety of ranges, and can be applied to other energy sources, like biomass wastes originated from other agro-industrial sectors.

3. Materials and Methods

3.1. Methodological Framework

The methodological framework applied in this study is presented in three general frames; the first one concerns the input data used in the modelThe second aspect refers to the tools used to find the optimal solution for the proposed model, which implies the mathematical formulation, solving methods and solution selection technique. The last segment shows the outputs obtained from the applied methodology and its representation form, which implies a pareto front and graphic representations of the optimal supply chain configuration (Figure 1).



Figure 1. Methodological framework applied.

3.2. Modelling Assumptions

The actual model describes the optimal behavior of a hydrogen production system in the steady state, considering many aspects, such as the production, distribution, and storage operating and investment costs, the accessibility of the raw material, the selling price for hydrogen at distribution points, and the greenhouse gas emissions. The approach applied focuses on developing an optimization model that maximizes profit and minimizes greenhouse gas (GHG) emissions in a system where hydrogen is obtained using agroindustrial wastes from sugar factories in Mexico.

The model arrangement integrates several assumptions that serve as a starting point for the estimation of the economic and environmental indicators that support the decisionmaking process in the strategic planning of the HSC. These assumptions are as follows:

- The operating time of the system is divided into harvest and non-harvest periods, in which the behavior during the generation of electrical energy differs from one another.
- It is assumed that investments in land and construction have already been paid off. Therefore, these aspects are not considered in the required capital investment.
- Given amounts of available electric energy and storage capacities are considered as model constraints.

3.3. Optimization Model Structure

The proposed model structure is integrated through several calculation modules, which are mainly divided into the following areas: production, transport, and storage. Figure 2 shows the general structure of the model. A description of each module is presented later.



ALK = Alkaline electrolysis, PEM = Proton Exchange Membrane electrolysis

Figure 2. Hydrogen supply chain superstructure.

3.3.1. Hydrogen Production Module

The production module estimates the amount of hydrogen that is convenient to produce based on the availability of electrical energy generated in each of the sugar cane mills by burning bagasse, which is an uncertain parameter for every mill whose behavior responds through probability distributions. The major objective of these calculations is to estimate the operating and investment costs that will result from the production infrastructure. In this section of the model, the selection of the best production technology and the estimate of the amount of hydrogen to be produced by each sugar factory is evaluated (Figure 3).



Figure 3. Hydrogen production scheme.

Hydrogen production is divided into two periods: the harvest season, when the greatest amount of H_2 is produced due to the enormous amount of electricity generated from the intensive operation of the sugar factories during this time of year; and the non-harvest season, during which mill operations are reduced due to the lack of raw sugarcane to be processed, thereby lowering the rate of electricity generation and the amount of energy available for hydrogen production. The length of each period is considered as an uncertain parameter according to probability distribution given in days per year [6].

Production cost estimations start by calculating the tons of raw sugar cane that will be processed by each mill during harvest times. The amount of bagasse obtained from sugar cane processing and the amount of moisture it contains are also measured. These values are unique for every sugar cane mill and are represented by probability distributions obtained from historical production records. Humidity measurement is used to determine bagasse energy potential [17]. The amount of bagasse that is used in each mill to generate steam in the boiler rooms during each period depends on the energy consumption behavior of the mill. The steam production dedicated to power generation in each period is estimated using the theoretical efficiencies of the boiler and the bagasse energy potential, also considering the fraction of the dead time operation. Using the amount of steam used to generate electricity, the amount of MWh generated in each period is calculated. Some of this electricity is used by the sugar factories for their daily activities, whereas the overflows are usually fed into the national electricity grid and sold to other organizations. In the proposed model, the energy overflows are used for hydrogen production, whereas their availability is different for the harvest and non-harvest periods.

Once the amount of electrical energy available for hydrogen production in each mill during each period is determined, the optimization model evaluates the most convenient means of production to convert the energy to hydrogen; the proposed technologies are alkaline water electrolysis and proton membrane exchange electrolysis, considering efficiency, investment capital and annual operating costs for each type of production facility. In addition, the variable production costs are calculated, considering the electricity and water prices for each region in which the hydrogen is produced.

3.3.2. Hydrogen Transportation Module

The hydrogen transport module focuses on estimating the capital and operating costs arising from hydrogen distribution activities throughout the supply chain, from the production facilities to the delivery of the hydrogen to the storage and dispatch stations (SDSs)—these are the endpoints where the hydrogen would be stored before they are delivered to the refueling stations (refueling stations are not considered in the actual model). In the analysis, the SDSs are considered as the final stage of the proposed supply chain design (as presented in Figure 4). The amount of greenhouse gas emissions caused by transport activities is also estimated. To achieve this, the optimization model determines the hydrogen flow in tons per year, considering the hydrogen that is generated in both harvest and non-harvest seasons. The model then evaluates the convenience of transporting the hydrogen generated in each electrolysis plant to each storage location; the most favorable network configuration relies on the active objective function. When optimizing with multiple destinations, two main factors influence this decision: the shipping distance (an aspect that has a direct impact on transport costs and equivalent CO_2 kg production), and the selling price of hydrogen at the storage locations, a value that relies on the SDSs' location selected to receive the determined amount of H_2 , which has a direct impact on the income generated.



Figure 4. Hydrogen distribution scheme.

Once the annual hydrogen flow is estimated, the number of trips to be made by the transport trucks is calculated based on the vehicle's loading capacity. The time available for each transport vehicle is considered in the calculation, and the number of vehicles required for all distribution operations during the year is determined, thereby obtaining the transport investment cost. The transport operating costs are estimated considering the fuel consumption, the maintenance cost factors (whereby both costs depend directly on the travelling distance from the electrolysis plant to the SDS), the driver's wages, and the toll costs of the selected route. The distance and the toll costs of 50 sugar cane mills for each of the 73 SDSs are shown as two data fields that can be called up via the information system of the national communications and transport department. Finally, the amount of equivalent CO_2 emitted by the network is calculated.

3.3.3. Hydrogen Storage Module

Liquid hydrogen is stored at the SDS, these being the storage points selected by the model in the multiple solutions found. This module calculates the investment capital and operating costs required for the storage units. The number of storage units is determined by the model according to the maximum hydrogen inventory received at a given station during the year of operation. Within these costs, the conditioning energy required for hydrogen compression is calculated and its price depends on the region where the SDSs that have been selected for storing the hydrogen are located. Additionally, the storage unit. The above factors determine the total cost of storage, a value that is added to the cost of production and transportation to determine the final cost of hydrogen on each SDS. Moreover, the revenue generated at each station depends on the gasoline sales price at such SDS, as this price is used as a reference for establishing a competitive sales price for hydrogen, as both serve as mobility fuel for medium-sized vehicles.

3.4. Optimization Model Formulation

3.4.1. Model Notation and Decision Variables

Multiple acronyms definitions, as well as model variables and parameters are presented in Table 2.

Nomenclature	Description
Alk	Alkaline electrolysis
CCUS	Carbon capture, utilization and storage
CONACYT	Consejo Nacional de Ciencia y Tecnología
CONADESUCA	Comité Nacional para el Desarrollo Sustentable de la Caña de Azúcar
FCEV	Fuel cell electric vehicle
GA	Genetic algorithm
GHG	Greenhouse gas
GWP	Global warming potential
HSC	Hydrogen supply chain
HSCN	Hydrogen supply chain network
MILP	Mixed integer linear programming
Min	Minimize
MW	Mega watt
MWh	Mega watt hour
NG	Natural gas
NPV	Net present value
O&M	Operation and maintenance
OF	Objective function
PEM	Proton exchange membrane electrolysis
SCBA	Social cost-benefit analysis
SDS	Storage and dispatch station

 Table 2. Glossary.

 Table 2. Cont.

Nomenclature	Description
SMR	Steam methane reforming
TOPSIS	Technique for order of preference by similarity to ideal solution
Indices	1
i	Sugar mille
n	Hydrogen production technology
P r	Identification number for regions
t	Identification number for storage and dispatch stations
Z	Production period
_ Decision Variables	
Fit	Hydrogen flow rate between sugar mill i and station t (ton/year)
PEip	Electrolysis plant type p at sugar mill i logic variable with values of 0 or 1
PH2 _{ipz}	Hydrogen production rate during period z from plant type p at sugar mill i (ton/year)
Parameters	
AD	Available storage capacity at station $t (m^3)$
AExpt	Total annual expenses of hydrogen stored at station t (\$/year)
AProf _t	Annual profit generated at station t (\$/vear)
AToll ^C ;+	Annual toll costs between sugar mill <i>i</i> and storage station <i>t</i> ($\frac{1}{\sqrt{2}}$
C ^{Alm} t	Annual storage cost at station t (\$/year)
Capexp	Capital expenditures for electrolysis plant type v (\$/MW)
Cap ^{Inst} in	Installed capacity of plant type p at sugar mill i (MW)
Cap ^{Trans}	Transportation mode capacity (ton)
C ^{Comb} _{it}	Fuel transportation costs between sugar mill <i>i</i> and storage station <i>t</i> ($\frac{1}{\sqrt{2}}$
C ^{Cond} ^t	Conditioning cost per ton of hydrogen at station t (\$/ton)
CFP _{ip}	Annual fixed production cost for plant type p at sugar mill i (\$/year)
CFUPin	Fixed production costs per ton of hydrogen for plant type p at sugar mill i (\$/ton)
CIP _{ip}	Production investment capital (\$)
C ^{Mant} _{it}	Maintenance expenses for transportation mode between sugar mill i and storage station t (\$/year)
CMO _{it}	Annual transportation labor costs between sugar mill <i>i</i> and station <i>t</i> ($\frac{1}{y}$)
C^{Prod}_{t}	Annual hydrogen production costs stored at station t (\$/year)
C ^{Trans} it	Transportation cost between sugar mill <i>i</i> and storage station t (\$/year)
CU ^{Alm}	Storage cost per ton of hydrogen at station t (\$/ton)
CU ^P _{ip}	Production cost per ton of hydrogen for plant type p at sugar mill i (\$/ton)
CVU ^P ip	Variable production cost per ton of hydrogen for plant type p at sugar mill i (\$/ton)
d _{it}	Distance between sugar mill <i>i</i> and storage station <i>t</i> (km)
DMT	Availability of transportation mode (days/year)
DOpz	Operational days during period z (days)
EC	Fuel economy of transportation mode (km/L)
E ^{Cons} p	Electricity consumption per ton of hydrogen p (MW/ton)
EnAc	Conditioning energy required per ton of hydrogen (MW/ton)
FCEV ^{Perf}	FCEV performance (km/ton of hydrogen)
FPt	Fuel price per liter at station t (\$/L)
Gas ^{ren}	Medium size combustion vehicle performance (km/L of gasoline)
GM	Maintenance expenses of transportation mode (\$/km)
GWPiotal	System's annual total GWP (eq kg CO_2 /year)
NUT _{it}	Number of transport units between sugar mill i and station t
Opex _p	Annual operating expense ratio to CAPEX of plant type $p(\%)$
PCG ^P	Storage GWP per ton of hydrogen (kg CO_2 eq/ton)
PCG ^T	Froduction GWP per ton of hydrogen (kg CO_2 eq/ton)
I CG	Hansportation Giver per ton of hydrogen (kg CO_2 eq/ ton) Electric networ price at station $t/($/MW)$
г ее _r рGWP	Production CWP (og. kg CO. /war)
r PHMax	Maximum hydrogen production during pariod z from plant type that sugar mill i (ton)
PVA	Water cubic meter price at region $r (\xi/m^3)$
PVCas	Reference fuel price per liter at station $f(\phi/\Pi)$
PVH2	Hydrogen selling price at station $t (\$/ton)$
SC	Monthly driver wage (\$/month)
	······································

Table 2.	Cont.
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Nomenclature	Description
S ^{GWP}	Storage GWP (eq kg CO ₂ /year)
TCD	Charge and discharge time of transportation mode (h/trip)
T ^{GWP}	Transportation GWP (eq. kg CO_2 /year)
TollC _{it}	Toll cost for hydrogen transportation units per trip (\$)
TotalUt _t	Annual total utilities at station t (\$/year)
Trips _{it}	Annual trips amount required between sugar mill i and station t (trips/year)
TUW	Transport unit weight (ton)
Vm	Average speed for transportation Unit (km/h)
W ^{Cons} p	Water consumption per ton of hydrogen at plant type p (m ³ /ton)

3.4.2. Production Constraints

Hydrogen production is limited by the amount of electrical energy available from sugar mills during the periods of harvesting and non-harvesting. The optimization model determines the most suitable amount of hydrogen to be produced annually. The annual amount of hydrogen that is generated in the type p electrolysis plant in the sugar mill i (*PH*2_{*ip*}) must be less than or equal to the sum of the maximum amount of produced hydrogen in both z periods, as described in Equation (1).

$$PH2_{ip} \leq \sum_{z} PHMax_{ipz}, \forall i = 1, 2, 3...50; z = 1, 2$$
 (1)

The electrolysis technology is selected by binary variable PE_{ip} , which takes on the zero value if no technology is selected at all, or takes the value 1 if it is selected to generate hydrogen in the sugar mill *i*. Since it is not possible to select both technologies for the same point of production, a constraint must be set to limit these events from being mutually exclusive. Equation (2) describes this limitation.

$$PE_{ip} + PE_{ip'} \le 1$$
, $\forall p = 1, 2$; $i = 1, 2, 3 \dots 50; p \ne p'$ (2)

The selection of one or the other electrolysis technology implies a difference in the conversion efficiency of electrical energy into hydrogen, both have different investment costs, annual operating, and maintenance costs.

3.4.3. Transportation Constraints

Produced hydrogen at each location should be distributed to the stations where it offers the highest economic and environmental benefits, considering the potential income, transportation costs, and CO₂ generation to make this decision. To achieve this, Equation (3) limits the flow rate of hydrogen per year distributed from sugar mill *i* to station *t* (F_{it}) to meet the amount of hydrogen transported to one or more stations with the amount produced at the supplier electrolysis plants ($PH2_i$).

$$\sum_{t} F_{it} = PH2_i, \ \forall \ i = 1, 2, 3 \dots 50; t = 1, 2, 3 \dots 73$$
(3)

3.4.4. Storage Constraints

Each SDS has a limited storage capacity, so the sum of the hydrogen flows (F_{it}) resulting from the production points *i* and which are to be stored in each terminal *t* must be limited by the available storage volume (AD_t) at this station. To achieve this, Equation (4) limits the amount of hydrogen a station can receive from one or more electrolysis plants.

$$\sum_{i} F_{it} \le AD_t, \ \forall \ i = 1, 2, 3 \dots 50; t = 1, 2, 3 \dots 73$$
(4)

3.4.5. Non-Negativity Constraints

All continuous, integer and binary variables must be non-negative.

$$PH2_{in} \ge 0, \ \forall \ i = 1, 2, 3 \dots 50$$
 (5)

$$PE_{ip} \ge 0, \ \forall \ i = 1, 2, 3 \dots 50$$
 (6)

$$F_{it} \ge 0, \ \forall \ i = 1, 2, 3 \dots 50; t = 1, 2, 3 \dots 73$$
 (7)

3.5. Profit Maximization Objective Function

The total profit of the system is calculated as the difference between the revenue obtained in the storage station and the increase in production (C^{Prod}_{t}) , transport (C^{Trans}_{it}) , and storage costs (C^{Alm}_{t}) achieved in one year of operation. Equation (8) describes the calculation for this statement.

$$MAX: TotalProfit = \sum_{t} (Profit_t = incomes_t - outcomes_t), \ \forall \ t = 1, 2, 3, \dots 73$$
(8)

The income parameter results from the multiplication of the tons of hydrogen that are intended for storage in station *t* by the hydrogen sales price ($PVH2_t$) determined for the respective station, as shown in Equation (9).

$$Incomes_t = \sum_i F_{it} * PVH2_t, \ \forall \ i = 1, 2, 3 \dots 50; \ t = 1, 2, 3 \dots 73$$
(9)

Hydrogen sales prices ($PVH2_t$) are determined based on the sales price for gasoline at each station *t* considering the power offered by each type of vehicle. This is achieved by Equation (10), which estimates the cost per kilometer (US\$/km) it would cost to the end-user. The sales price of gasoline is divided by the average theoretical power that a gasoline engine (Gas^{Perf}_t) offers for the car used as a reference in this analysis, resulting in a cost in US\$/km. This value is then multiplied by the average power of a hydrogen fuel cell engine ($FCEV^{Perf}$), measured in km/kg H₂, which determines the hydrogen sales price in US\$/kg at each SDS.

$$PVH2_t = \frac{PVGas_t}{Gas^{Perf}} * FCEV^{Perf}, \ \forall \ t = 1, 2, 3...73$$
(10)

when calculating the total annual costs ($AExp_t$), the operating costs for the production, transport, and storage of hydrogen from generation in the electrolysis systems to storage at the SDSs are considered. This is represented by Equation (11).

$$AExp_t = C_t^{Prod} + C_{it}^{Trans} + C_t^{Alm}$$
(11)

3.5.1. Production Costs

The production cost (C^{Prod}_{t}) is calculated using Equation (12), where the hydrogen flows (F_{it}) from point *i* to endpoint *t* is multiplied by the production cost per unit (CU^{P}_{ip}) produced in sugar mill *i*.

$$C_t^{Prod} = \sum_i (F_{it} * CU_{ip}^P) ; \forall i; t$$
(12)

The estimate of the production costs in each electrolysis plant is determined by the sum of the variable production costs per unit (CVU^{P}_{ip}) , which relates to the consumption of water and electricity in the process, and the fixed unit production costs $(CFUP_{ip})$, including the cost of operating and maintaining the production facilities as expressed in Equation (13).

$$CU_{ip}^{P} = CVU_{IP}^{P} + CFUP_{ip}, \forall i$$
(13)

 CVU_{ip}^{P} (Equation (14)) results from costs of electricity and water volume required hydrogen production per ton. These costs vary depending on the prices of these resources (*PEE_r* and *PVA_r*) in each region *r*. The power consumption depends on the electrolysis technology selected at each point *i*, since each type of plant has a different transformation performance (Equation (14)).

$$CVU_{pr}^{P} = (PEE_{r} * E_{p}^{Cons}) + (PVA_{r} * W_{p}^{Cons}), \forall r, p$$
(14)

The fixed production costs (CFP_{ip}) comprise the operating and maintenance costs $(Opex_p)$ in the production facilities, which are expressed as a percentage (%) of the investment capital and refer to an annual cost. Both the production investment capital (CIP_{ip}) and the operating and maintenance costs depend on the hydrolysis technology selected. The cost of capital estimate is based on the installed capacity (Cap^{Inst}_{ip}) of energy processing converted into hydrogen at point *i* (where an additional gap of 20% is considered to compensate for possible fluctuations in the electricity supply) multiplied by the cost of the capital per installed MW (*Capex_p*). The maximum electricity conversion capacity is estimated using the maximum amount of electricity per hour that will be achieved during the harvest season. This is shown in Equations (15)–(17).

$$Cap_{ip}^{Inst} = \frac{PH2_{ipz}}{OpD_z * 24} * E_P^{Cons} * 1.2; \ z = 1, \ \forall \ i, p$$
(15)

$$CIP_{ip} = Capex_p * CapInst_{ip}, \forall i, p$$
(16)

$$CFP_{ip} = CIP_{ip} * Opex_p, \ \forall \ i, \ p \tag{17}$$

The fixed unit production cost $(CFUP_{ip})$ is estimated by dividing the annual cost by the annual production (Equation (18)) during harvest and non-harvest periods.

$$CFUP_{ip} = \frac{CFP_{ip}}{PH2_{ipz} + PH2_{ipz'}}, \forall i, p, z$$
(18)

3.5.2. Transportation Costs

The transportation costs (C^{Trans}_{it}) consider the fuel consumption (C^{Comb}_{it}), the labor costs (CMO_{it}), and the maintenance costs (C^{Mant}_{it}) of the transport units, as well as the toll costs ($TollC_{it}$), the values of which are specific for the transport of the hydrogen produced in each plant location *i* and delivered to the stations *t* during the entire operating days. Equation (19) is used to illustrate these calculations.

$$C_{it}^{Trans} = \sum_{i} (C_{it}^{comb} + CMO_{it} + C_{it}^{Mant} + TollC_{it}); \forall i, t$$
(19)

First, the estimate of the number of trips required to distribute the hydrogen flow allocated from facilities *i* to stations *t* is obtained, dividing the annual hydrogen flow by the capacity of the transport units (*Cap*^{Trans}), as shown in Equation (20).

$$Trips_{it} = \frac{F_{it}}{Cap^{Trans}}; \ \forall \ i, \ t$$
(20)

The fuel cost (C^{Comb}_{it}) used by the transport units to distribute the hydrogen is obtained by multiplying the estimated number of trips by twice the distance from point *i* to point *t* (d_{it}). This value is then multiplied by the fuel price ($PComb_t$) and divided by the fuel consumption (EC) in km/L. This concept is illustrated in Equation (21).

$$C_{it}^{comb} = \frac{PComb_t}{EC} * (2 * d_{it}) * Trips_{it}; \forall i, t$$
(21)

The labor cost is calculated using the number of transport units required for hydrogen distribution for all the days of operation. The number of transport units is estimated using Equation (22), where *Vm* relates to the average speed of the unit, *TCD* to the loading and unloading time, and *DMT* to the available time that the transport units consider disposed of. Both values are expressed in hours/year.

$$NUT_{it} = Trips_{it} * \left(\frac{2d_{it}}{Vm} + TCD\right) * \frac{1}{DMT} ; \forall i, t$$
(22)

The NUT_{it} parameter is multiplied by the driver's monthly salary (*SC*) and multiplied by 12 (months per year) to calculate the annual labor cost (*CMO*_{it}), as shown in Equation (23).

$$CMO_{it} = NUT_{it} * SC * 12; \forall i, t$$
(23)

The maintenance cost of the transport unit is calculated by multiplying the maintenance cost (*GM*) by the total distance in all working days. This is expressed in Equation (24).

$$CMant_{it} = GM * (2d_{it}) * Trips_{it}; \forall i, t$$
(24)

Finally, the annual toll costs ($AToll^{C}_{it}$) that must be covered to use the routes selected by the model for hydrogen distribution are calculated. This is achieved by considering the number of trips multiplied by the toll price ($TollP_{it}$), which is specific to each route, as shown in Equation (25).

$$AToll_{it}^{C} = Trips_{it} * TollP_{it}; \forall i, t$$
(25)

3.5.3. Storage Costs

The total storage costs comprise the storage costs per unit (CU^{Alm}) , considering the O&M costs of the storage units and hydrogen conditioning cost per unit (C^{Cond}_t) , a value that is a function of the electrical power required to liquefy the hydrogen (EnAc) to the desired conditions prevailing in the region in which the SDS is located. With this assumption, the conditioning cost per unit is calculated using Equation (26), while the total storage cost is calculated using Equation (27).

$$C_t^{Cond} = EnAc * PEE_r; \forall r, t$$
(26)

$$C_t^{Alm} = \sum_i F_{it} * \left(CU^{Alm} + C_t^{Cond} \right); \ \forall \ i, \ t$$
(27)

3.6. GWP Objective Function

The *GWP* parameter considered in this model includes the greenhouse gas emissions from hydrogen storage (S^{GWP}), and transport (T^{GWP}), which are generated during an entire year of system operation. Equation (28) is used to calculate the total amount of equivalent CO₂ kilograms for the entire operation.

$$Min \ GWP^{Total} = P^{GWP} + S^{GWP} + T^{GWP}$$
⁽²⁸⁾

3.6.1. Production GWP

The greenhouse gas emissions from hydrogen production are determined by multiplying the total hydrogen produced in the year of operation by the amount of CO_2 produced per kilogram of hydrogen (*PCG*^{*P*}), as shown in Equation (29).

$$P^{GWP} = \sum_{i} PH2_i * PCG^P; \ \forall \ i$$
⁽²⁹⁾

3.6.2. Transportation GWP

Hydrogen transport is a major contributor to emissions from the CO_2 and heavily depends on the distances between the production points and the storage stations selected by the model to store hydrogen. Equation (30) is used to estimate the calculation of the kilograms of equivalent CO_2 produced by transportation. These calculations start with the distances traveled in the year of operation of the system, with the number of trips made multiplied by twice the distance from the production site to the SDS. The resulting value is multiplied by the eq- CO_2 kg (PCG^{Trans}), and the weight of the transport unit (*WeightUT*) is also considered when estimating this parameter.

$$T^{GWP} = \sum_{it} (2 * d_{it} * Trips_{it}) * PCG^{Trans} * WeightUT ; \forall i, t$$
(30)

3.6.3. Storage GWP

The storage of hydrogen also generates a significant amount of equivalent CO_2 , mainly related to energy conditioning and the operation of storage units. The estimate of the carbon dioxide emissions generated by the storage of hydrogen is determined using Equation (31), which uses the variable PCG^{Alm} , which refers to the equivalent CO_2 kg/ton of hydrogen, and which is multiplied by the total hydrogen tons accumulated in each terminal for the entire year of operation.

$$S^{GWP} = \sum_{it} F_{it} * PCG^{Alm} ; \forall i, t$$
(31)

3.7. Solution Methods

For solving MILP problems, the use of genetic algorithms appears to be one of the most effective methods to find a wide range of feasible solutions when solving similar mathematical problems according to the literature. For selecting the multi-objective optimization method, several alternatives were considered. The selected approach was a meta-heuristic technique, using MULTIGEN software which is a GA used by the research team in previous studies. In addition, multi-objective simulated annealing and multi-objective tabu search techniques were evaluated. At first, a mono-objective optimization method was applied to identify the behavior of the model concerning the optimal solutions for each objective function (to identify antagonism), then multi-criteria optimization was performed. MULTI-GEN turned out to be convenient in terms of efficiency and convergence time. MULTIGEN has been applied by the research team in previous studies concerning multi-objective optimization of the HSC [14,31]. The optimization approach was performed in two stages. The first one focuses on the single optimization of each objective function. The second one is aimed to obtain a range of feasible solutions when both optimization criteria are considered simultaneously. For selecting the mid-point solution from the obtained pareto front, the multi-criteria decision-making technique TOPSIS was applied. The assignment of weights for each criterion was performed along the organization interested in the study, assigning equivalent weights for both criteria, since the company decided that both aspects were equally relevant in the decision making.

The GA applied for solving the mathematical model was built using the user interface, generated by the optimization software. The GA parameters were defined based on an iterative procedure, where different combinations were evaluated, selecting those with the smallest solving times. The TOPSIS method was applied using a spreadsheet that allows evaluation of the 1000 possible solutions.

3.8. Mathematical Model Optimization Framework

The mathematical model optimization was carried out with two GA's, the first regarding the independent optimization of each target using the Evolver optimization software in version 7.6 developed by PALISADE, obtaining the best value for each objective function. The second GA is a multi-objective optimization tool that implements a variant of NSGA II developed in the Chemical Engineering Laboratory at the Institut National Polytechnique de Toulouse (INPT). The MULTIGEN algorithm was set to optimize the optimization criteria at the same time. The optimization algorithms were calculated using an 8-core AMD Ryzen 7 2700X processor at 3.7 GHz.

3.8.1. Mono-Objective Optimization

The individual criteria optimization is carried out using the GA interface, which is integrated into the Evolver optimization software. With this software, the user can easily define an optimization model, prioritizing that the logic of the decision variables and the constraints correspond to the mathematical formulation.

The performance of a GA for finding optimal solutions can be influenced by its parameter configuration. Therefore, a sensitivity analysis was performed to define these elements and look for those that would give the best results in finding the optimal solution. These parameters are listed in Table 3 along with the stopping conditions considered for the mono-objective optimization, which were defined to obtain workable solutions until a significant improvement is found over a certain number of iterations.

Table 3. Genetic algorithm parameters and stopping conditions for mono-objective optimization.

Parameter	Value
Population	30,000
Crossing rate	0.5
Mutation rate	0.1
Solution method	Order
Stopping	g conditions
Max. Change	0.005%
Max. Iterations without improvement	20,000

3.8.2. Multi-Objective Optimization

The multi-criteria optimization phase is carried out by MULTIGEN optimization software. The model formulation is introduced by generating the optimization interface in which the GA parameters, such as population size or the number of generations, can be defined. The selected configuration of the GA is shown in Table 4. These values are determined by a sensitivity analysis, from which the best configuration for the selected algorithm could be determined.

Table 4. Multi-objective genetic algorithm configuration.

Parameter	Value
Population	36,500
Number of generations	73,000
Crossing rate	0.9
Mutation rate	0.5

Different parameters were used in both algorithms since each of them responds differently to the parameter values. Several values were tried before finding the optimal configuration for each GA. When optimizing multiple objectives simultaneously, a Pareto front is generated with a set of different feasible solutions; then, the alternative that better meets both optimization criteria is selected using a decision-making technique (TOPSIS).

4. Case Study

4.1. Mexican Sugarcane Industry

Sugar cane is mainly used in Mexico to make refined sugar by extracting syrups from its stems. In the 2018/2019 harvest season, the National Committee for the Sustainable Development of Sugar Cane (CONADESUCA) reported a harvested area of 805.5 thousand hectares, around 57,036,700 tons of gross base cane and 6.4 million tons of sugar. The

average yield per hectare at the national level is estimated at 70.81 tons in the industrialized acreage dedicated to grinding in the sugar mills [32,33].

The main activities of the sugar mills are divided into two periods: harvest or grinding period. This is when the harvested cane is processed for sugar production and the maintenance period, which coincides with the rainy season when farmers devote themselves to growing sugar cane. In the second phase, production in the mill is stopped to take over the dismantling, repair, and improvement of the factory to prepare for the next grinding period. The 2018/2019 harvest took place over 179 days with 50 sugar mills operating, mainly located in the west, the Gulf, and the south of the country.

Sugarcane Bagasse Generation and Characteristics

In this study, information of 50 sugar mills is taken from the sixth statistical report of the agro-industrial sugar cane sector in Mexico [34] by CONADESUCA, which provides data from the harvest period 2006/2007 to 2018/2019. The amount of bagasse available is modeled as a percentage of the tons of raw cane milled annually. Acting as model inputs, the amount of ground raw cane, the remaining bagasse fraction, and the moisture contained in the bagasse are considered as uncertain parameters and modeled using probability distribution. The mathematic formulation for calculating the fraction of bagasse that is available in the HSC for power generation is extracted from the work previously carried out by Rico Contreras, among the calculations for converting the bagasse into electricity [6]. This information is presented in Appendixes A and B.

4.2. Hydrogen in Mexico

4.2.1. Hydrogen Demand

The estimated hydrogen demand for mobility purposes has been determined based on the available capacity of each of the 76 SDSs, which are spread across Mexican territory and are currently used for fossil fuel storage and subsequent distribution at petrol stations for sale to the public [35].

4.2.2. Hydrogen Production

The proposed model considers two primary means of hydrogen production: alkaline electrolysis and the proton exchange membrane [36]. They are mainly considered due to their technological maturity and their availability in the international market. Each technology has different properties that can have a significant impact on the cost of hydrogen production [37]. These are shown in Table 5. Electricity and water prices were modeled using probability distributions, as listed in Appendix C.

Parameter	Alkaline	PEM	Reference
 E ^{Cons} (kWh/kgH ₂)	49	52	
Performance (HHV) (%)	71	64	
CAPEX (\$/kW)	507.8	740.5	[27]
Opex (%CAPEX/year)	3	2	[36]
Lifetime (years)	20	20	
W^{Cons} (m ³ /ton H ₂)	9		

 Table 5. Production parameters.

The variable cost of hydrogen produced by electrolysis is heavily influenced by the electricity and water prices of the region in which it is produced. Information on these prices has been compiled for each region considered in the study.

4.2.3. Hydrogen Storage

Capital costs of the storage units, the storage unit costs, and the parameters to produce greenhouse gases are presented in Table 6. Information concerning the storage capacity and availability for each SDS is presented in Appendix D.

Parameter	Storage Unit	
Minimum Capacity (kg)	500	
Maximum capacity (kg)	10,000	
Investment capital (\$)	5,542,595	[7 0]
C^{Alm} (\$/kg H ₂)	0.722	[7,9]
Lifetime (years)	20	
S^{GWP} (kg CO ₂ per ton H ₂)	704	
Maximum storage time (days)	10	Assumption

Table 6. Hydrogen storage parameters.

4.2.4. Hydrogen Transportation

This study uses real geographic information from the communications and transportation department to determine the shipping distances and toll costs of the selected routes and to find the optimal route configuration. The proposed transportation mode to be used in the hydrogen shipment are tanker trucks, as this is the transportation mode of fossil fuels currently used in Mexico [35]. The toll costs of the selected routes for the hydrogen distribution considers the type of truck used, which are 6-axis vehicles. The distances between each mill and the SDSs considered are collected as well [38]. To calculate the transport costs, these values must be multiplied by two to get the round-trip flight costs. The hydrogen transport parameters are listed in Table 7. Data sets used for distance and transportation costs calculations are listed in Appendix E.

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Parameter	Value	Scale	Reference
TUW	40	Ton	[9]
SC	736	\$/month	[35]
EC	2.3	km/L	[7]
FP	-	-	Appendix D
TCD	2	Hours per trip	[7]
C ^{Mant}	2.42	\$/km	[7]
Vm	67	km/h	[/]
DMT	18	Hours/day	Assumption
T^{GWP}	62	g CO ₂ per ton-km	F 4 1
Cap ^{Trans}	3.5	Ton	[4]
Trans ^{Capex}	293,756	\$	[7]

 Table 7. Hydrogen transportation parameters.

4.2.5. Hydrogen Selling Price

The information for estimating the hydrogen sales price is given in Table 8. The annual distance traveled by a medium-sized private vehicle is also established to be used in the calculation of the hydrogen selling price.

Table 8. Hydrogen selling price parameters.

Parameter	Value
FCEV ^{Perf}	0.98 kg H ₂ /100 km
Annual average distance traveled for medium size vehicles	15,000 km/year

5. Results and Discussion

5.1. Mono-Objective Optimization Results

Both objective functions were initially optimized independently of one another. With these results, it is possible to create a comparison table showing the resulting values from both selected criteria optimizations, as shown in Table 9.

Parameter	Profit O.F.	GWP O.F.
Number of production units	50 ALK	50 ALK
Number of transport units	73	55
Number of storage units	275	286
Invest	ment capital costs	
Production capital cost	\$373,654,974	\$373,654,974
Transport capital cost	\$5,402,025	\$4,070,019
Storage capital cost	\$1,524,213,622	\$1,585,182,167
Total capital cost	\$1,903,270,621	\$1,962,907,160
Ōŗ	perating costs	
Production	\$188,692,213	\$188,692,213
Transport	\$5,682,987	\$2,242,429
Storage	\$27,354,603	\$28,880,026
Total Outcome	\$221,729,804	\$219,815,777
Average cost per unit $(\$/\text{kg H}_2)$	\$3962	\$3928
Pro	ofit estimation	
Total hydrogen production (ton/year)	55,965	55,965
Average selling price (\$/ton)	\$8938	\$8782
Total income	\$500,220,813	\$491,490,525
Annual profit	\$278,491,009	\$271,675,857
Net profit margin	55.67%	44.72%
GW	P (kg eq. CO_2)	
Production	-	-
Transport	39,399,360	39,399,360
Storage	19,783,361	7,015,414
Total GWP (kg eq. CO_2)	59,182,721	46,414,774
GWP per unit (kg eq. CO_2 /ton H ₂)	1057	829
Optimization time (s)	17,388	21,728

Table 9. Mono-objective optimization results.

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Based on the resulting values, it is determined that it is possible to produce hydrogen at the 50 locations of the sugar mill, which allows the system to produce 55,965 tons of hydrogen per year.

From the profit maximization O.F. obtained solution, 73 transportation units and 275 storage units are required to ensure the logistics demand of hydrogen. In contrast, in the GWP O.F. solution, only 55 transport units and 286 storage units are needed. Additionally, the capital expenditures for each element of the supply chain were estimated, resulting in US\$1,903,270,621 for the first O.F., and US\$1,962,907,160 for the second one. The obtained solutions put the annual operating cost of the entire system at US\$221,729,804 and US\$219,815,777 for each O.F., respectively. The production cost obtained in the first O.F. optimization contributes 85% to the final cost of hydrogen (Figure 5), while transportation and storage give 3% and 12%, respectively.



Figure 5. Pie chart of the hydrogen total cost composition obtained from Profit O.F.

In Figure 6, a pie chart shows the composition of the total cost of hydrogen obtained from the GWP O.F. optimization. It can be observed that the transportation costs reduced their participation on the total cost of hydrogen in the optimization of the second O.F. from 3% to 1%. This is expected since the GWP optimization looks mainly to deliver the hydrogen to the closet SDS to reduce the gases emitted by the network. The production and storage cost participation increased due to the previous statement.



Figure 6. Pie chart of the hydrogen total cost composition obtained from GWP O.F.

Another clear difference is the average selling price of hydrogen which goes from US\$8938/ton in the profit optimization to US\$8782/ton in the GWP optimization, which was expected since the selling price of hydrogen is a critical factor for a SDS to be selected in the profit O.F. The annual profit of the system is estimated at US\$278,491,009, which equates to a net profit margin of 55.67% for the first objective function and US\$271,675,857 with a profit margin of 44.72% for the second O.F. Occupancy in the SDS's refers to the percentage of storage volume at the selected station in which hydrogen is stored, whereby a ratio of 4.49% is achieved.

A detailed economic report is shown in Table 10. In the first column are the names of the sugar factories where the electrolysis plants were located. The second column shows the names of the storage and dispatch stations where the hydrogen is stored, which are the locations for the storage units. In the rest of the columns, the information of the hydrogen flow from the PE to the storage location, the costs of production, transportation, and storage per unit are shown separately at first, then the total cost of hydrogen and the selling price per unit at each SDS. A profit estimation calculated from the difference of selling revenues and total cost is displayed.

Table 10. Profit O.F. detailed econom	uic report
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E.P. Location	SDS	Hydrogen Flow (Ton/Year)	Production Cost (\$/Ton)	Transportation Cost (\$/Ton)	Storage Cost (\$/Ton)	Total Cost per Unit (\$/Ton)	Selling Price (\$/Ton)	Profit (\$/Year)
El Molino	Guamúchil	880	1984.82	265.82	290.91	2541.55	9198.38	5,858,008
Puga		1414	1984.82	266.11	290.91	2541.85	9198.38	9,412,337
El Dorado	Culiacán	479	1984.82	35.71	290.91	2311.44	9163.75	3,282,257
Quesería		1292	3269.16	367.73	290.91	3927.80	9163.75	6,764,828
Ameca Bellavista José Ma Morelos Melchor Ocampo Tala	Теріс	1050 641 648 1162 1714	3269.16 3269.16 3269.16 3269.16 3269.16	81.73 97.94 151.03 138.41 82.71	290.91 290.91 290.91 290.91 290.91	3641.80 3658.01 3711.10 3698.48 3642.83	9085.17 9085.17 9085.17 9085.17 9085.17 9085.17	5,715,544 3,478,795 3,482,392 6,259,316 9,328,207
Aarón Sáenz El Mante San Miguel del Naranjo	Zacatecas	1104 976 1980	3456.53 3456.53 3456.53	171.07 172.05 163.51	500.74 500.74 500.74	4128.34 4129.32 4120.78	9030.35 9030.35 9030.35	5,411,801 4,783,390 9,720,987
Alianza Popular	Aguascalientes	1216	3456.53	161.64	500.79	4118.96	9032.66	5,975,092
Plan de Sal Luis		1400	3456.53	225.29	500.79	4182.61	9032.66	6,790,102

E.P. Location	SDS	Hydrogen Flow (Ton/Year)	Production Cost (\$/Ton)	Transportation Cost (\$/Ton)	Storage Cost (\$/Ton)	Total Cost per Unit (\$/Ton)	Selling Price (\$/Ton)	Profit (\$/Year)
Lázaro Cárdenas		273	3269.16	81.68	500 79	3851 62	9078.54	1 426 943
Pedernales		436	3269.16	106.04	500.79	3875.98	9078.54	2.268.306
Santa Clara	Zamora	655	3269.16	38.51	500.79	3808.45	9078.54	3,451,896
Tamazula		1566	3269.16	59.58	500.79	3829.52	9078.54	8,219,934
Plan de Ayala		1325	3456.53	201.18	500.79	4158.50	9013.80	6,433,280
El Higo	Celaya	1957	3436.98	182.47	500.79	4120.24	9013.80	9,576,710
Pánuco		1918	3436.98	254.86	500.79	4192.63	9013.80	9,247,004
Atencingo	C II	1827	3617.09	25.44	557.81	4200.34	8944.01	8,666,645
Casasano	Cuautia	645	3617.09	19.30	557.81	4194.20	8944.01	3,063,613
Calipam		233	3617.14	53.49	557.81	4228.44	8872.10	1,081,978
El refugio	Tahua sán	475	3616.80	76.18	557.81	4250.79	8872.10	2,195,132
Constancia	Tenuacan	886	3436.98	64.24	557.81	4059.04	8872.10	4,264,358
Motzorongo		1341	3436.98	58.99	557.81	4053.78	8872.10	6,461,356
Emiliano Zapata	Iguala	1187	3617.09	50.39	557.81	4225.29	8998.92	5,666,304
López Mateos	2	1607	3616.80	76.47	557.81	4251.08	8933.10	7,523,971
Tres Valles	– Oaxaca	2396	3436.98	86.00	557.81	4080.80	8933.10	11,626,096
Huixtla	Tapachula	1202	3616.80	25.98	557.81	4200.59	8927.95	5,682,255
El Modelo	D (1079	3436.98	44.20	528.29	4009.48	8845.38	5,217,947
Mahuixtlán	Perote	436	3436.98	48.72	528.29	4014.00	8845.38	2,106,469
La Gloria	Valana	1581	3436.98	29.91	528.29	3995.19	8816.01	7,621,740
San Pedro	Лагара	1273	3436.98	82.86	528.29	4048.13	8816.01	6,069,513
El Carmen		577	3436.98	19.79	528.29	3985.07	8797.40	2,776,722
El Potrero		1707	3436.98	21.91	528.29	3987.18	8797.40	8,211,057
La providencia		811	3436.98	30.11	528.29	3995.38	8797.40	3,894,444
Progreso	Escamela	913	3436.98	48.23	528.29	4013.51	8797.40	4,367,711
San Cristobal		560	3436.98	18.81	528.29	3984.09	8797.40	2,695,459
San Miguelito		525	3436.98	55.60	528.29	4020.87	8797.40	2,507,675
San Nicolas		1103	3436.98	23.48	528.29	3988.75	8797.40	5,303,941
La margarita		1226	3616.80	17.04	528.29	4162.13	8773.28	5,653,241
Cuatotolapan	Tierra Blanca	835	3436.98	60.31	528.29	4025.59	8773.28	3,964,315
San Cristobal		2584	3436.98	28.68	528.29	3993.96	8773.28	12,349,672
Benito Juárez	Villahormosa	1438	3436.98	26.18	528.29	3991.45	8733.89	6,819,600
Santa Rosalia	vinanermosa	781	3436.98	27.31	528.29	3992.58	8733.89	3,702,945
Azsuremex	- ·	223	3436.98	166.31	547.35	4150.69	8760.07	1,027,891
La Joya	Campeche	826	3553.49	32.12	547.35	4132.96	8760.07	3,821,972
Pucte		1602	3553.49	103.05	547.35	4203.88	8760.07	7,298,984
-	Total	55,965	-	-	-	-	-	278,491,009
-	Average	1119	3352.11	94.50	486.00	3961.94	8938.11	5,569,820

Table 10. Cont.

It is possible to see significant differences in the contribution of the various elements of the supply chain to costs. For example, hydrogen from the El Molino and Puga generation points makes a higher contribution to the transport costs than the rest, as the reported production costs in these facilities are exceptionally low (US\$1984.82/ton of H_2) compared with other facilities. It is possible to distribute hydrogen over greater distances to stations with higher sales prices.

The hydrogen distribution for this solution is a decision that is heavily influenced by the selling price at the SDS for which it is intended. However, a SDS an extremely large distance from the electrolysis plant that supplies it would cause higher transport costs. Therefore, the model carries out an assessment and determines to which of the storage stations the hydrogen produced should be distributed.

The GWP for supply chain operations was then calculated. The electrical energy from the emissions balance of bagasse production is regarded as neutral due to its agricultural origin, so that the estimate of greenhouse gas emissions is limited to the transport and storage factors, the second one contributes majorly with a share of 67% of greenhouse gas emissions. On this basis, it is estimated that this configuration of the HCS generates 59,182,721 kg of equivalent CO₂, or 1057 kg of CO₂/ton of distributed and stored hydrogen.

The HSC configuration obtained from the profit objective function optimization is presented in Figure 7.



Figure 7. HSC configuration obtained by profit O.F. optimization.

Concerning the optimization of the GWP objective function, considerable differences can be observed compared to the profit optimization function. First, the number of transport units has been significantly reduced to 55, so the investment capital is also reduced. However, this configuration requires 286 storage units, a higher number than previous results, and while this is the factor that has the greatest impact on the capital cost. Thanks to this, the investment required to deploy the supply chain increases to US\$1,962,907,160.

The production makes the largest contribution to operating costs but remained constant for both OFs. Besides, the operating costs for the transport are reduced by 60%, which is a consequence of the fact that the algorithm in this OF mainly focuses on the selection of the shortest distances from the hydrogen production points to the SDS and requires fewer transport units to carry out the distribution. As a result, the unit cost of hydrogen will be significantly reduced to an average of US\$3928 per ton.

With respect to profit, the average selling price is US\$8782/ton of hydrogen. Because of this, there are fewer economic benefits compared to the solution shown above, which in this case is US\$271,675,857, resulting in a profit margin of 44.72%.

Table 11 shows the key results of the economic indicators for each station selected by the model for hydrogen storage and shows the unit cost of supply chain operations and the selling price at each SDS. In this case, the average final cost of hydrogen is reduced compared to the previous solution, assuming a value of US\$3908/ton and an average sales price of US\$8804/ton.

E.P. Location	SDS	Hydrogen Flow (Ton/Year)	Production Cost (\$/Ton)	Transportation Cost (\$/Ton)	Storage Cost (\$/Ton)	Total Cost per Unit (\$/Ton)	Selling Price (\$/Ton)	Profit (\$/Year)
El Dorado	Culiacán	479	1984.82	35.71	290.91	2311.44	9163.75	3,282,247
El Molino Puga	Tepic	880 1414	1984.82 1984.82	12.03 12.18	290.91 290.91	2287.82 2287.92	9085.17 9085.17	5,981,676 9,611,305
Aarón Sáenz Alianza Popular	C. Wistowie	1104 1216	3456.58 3456.58	41.85 102.55	531.24 531.24	4029.67 4090.37	8841.90 8841.90	5,312,714 5,777,865
Naranjo	Ca. victoria	1562	3456.58	63.65	531.24	4051.47	8841.90	7,482,657
Pánuco		1918	3436.98	94.70	531.24	4062.92	8841.90	9,166,055
El Mante San Miguel del Naranjo	Cd. Mante	976 418	3456.58 3456.58	10.36 39.24	531.24 531.24	3998.18 4027.06	8783.10 8783.10	4,670,094 1,988,030
Plan de Ayala Plan de SL El Higo	Cd. Valles	1325 1400 1957	3456.58 3456.58 3436.98	7.66 19.55 37.03	531.24 531.24 531.24	3995.48 4007.37 4005.26	8809.97 8809.97 8809.97	6,379,213 6,723,660 9,402,801
Ameca Bellavista Tala	Zapopan	1050 641 1714	3269.16 3269.16 3269.16	30.40 28.83 15.08	500.79 500.79 500.79	3800.34 3798.77 3785.02	8990.47 8990.47 8990.47	5,449,620 3,327,871 8,922,122
Santa Clara	Zamora	655	3269.16	38.56	500.79	3808.50	9078.54	3,451,876
Lázaro Cárdenas Pedernales	Uruapan	273 436	3269.16 3269.16	39.15 69.30	500.79 500.79	3809.09 3839.24	9000.49 9000.49	1,417,253 2,250,304
Quesería Tamazula	Colima	1292 1566	3269.16 3269.16	17.34 43.32	500.79 500.79	3787.28 3813.26	8927.31 8927.31	6,640,918 8,008,598
José María Morelos	Manzanillo	648	3269.16	90.77	500.79	3860.71	8667.29	3,114,665
Melchor Ocampo		1162	3269.16	98.62	500.79	3868.57	8667.29	5,576,116
Atencingo Casasano	Cuautla	1827 645	3617.14 3617.14	25.44 19.30	557.81 557.81	4200.39 4194.25	8944.01 8944.01	8,666,588 3,063,593
Calipam	Tehuacán	233	3617.14	53.44	557.81	4228.39	8872.10	1,081,986
Emiliano Zapata	Cuernavaca	1187	3617.14	22.74	557.81	4197.69	8915.18	5,599,657
Huixtla	Tapachula	1202	3616.80	25.98	557.81	4200.59	8927.90	5,682,213
Mahuixtlán	Xalapa	436	3436.98	27.31	528.29	3992.58	8816.01	2,103,009
El Carmen El Potrero La Providencia Progreso San José de Abajo San Miguelito	Escamela	577 1707 811 913 560 525	3436.98 3436.98 3436.98 3436.98 3436.98 3436.98 3436.98	19.74 21.91 31.58 48.23 33.79 55.60	528.29 528.29 528.29 528.29 528.29 528.29 528.29	3985.02 3987.18 3996.86 4013.51 3999.07 4020.87	8797.40 8797.40 8797.40 8797.40 8797.40 8797.40 8797.40	2,776,734 8,211,016 3,893,227 4,367,679 2,687,057 2,507,667
Adolfo López Mateos El Modelo La Gloria Motzorongo San Cristobal San Nicolás	Veracruz	1607 1079 1581 1341 2584 1103	3616.80 3436.98 3436.98 3436.98 3436.98 3436.98 3436.98	62.97 28.44 29.32 50.34 68.22 55.80	528.29 528.29 528.29 528.29 528.29 528.29 528.29	4208.06 3993.71 3994.60 4015.62 4033.50 4021.07	8522.45 8522.45 8522.45 8522.45 8522.45 8522.45 8522.45	6,933,222 4,886,503 7,158,529 6,043,655 11,599,444 4,965,017
San Pedro El Refugio La Margarita Constancia Tres Valles	Tierra Blanca	1273 475 1226 886 2396	3436.98 3616.80 3616.80 3436.98 3436.98	44.25 33.74 17.04 26.62 12.13	528.29 528.29 528.29 528.29 528.29 528.29	4009.53 4178.83 4162.13 3991.90 3977.41	8522.45 8773.23 8773.23 8773.23 8773.23	5,744,944 2,182,339 5,653,206 4,236,264 11,490,797
Cuatotolapam	Minatitlán	835	3436.98	44.94	528.29	4010.22	8623.23	3,851,868
Azsuremex Benito Juárez Santa Rosalía	Villahermosa	223 1438 781	3436.98 3436.98 3436.98	109.48 26.18 27.31	528.29 528.29 528.29	4074.75 3991.45 3992.58	8733.89 8733.89 8733.89	1,038,987 6,819,623 3,702,960
La Joya	Campeche	826	3553.49	32.12	547.35	4132.96	8760.07	3,822,004
San Rafel Pucté	Yucatán	1602	3553.49	74.71	547.35	4175.54	8524.36	6,966,830
-	Total	55,965	-	-	-	-	-	271,675,857
-	Average	1097	3354	40.72	513.11	3907.96	8803.93	5,433,517

 Table 11. GWP O.F. detailed economic report.

Finally, a significant decrease in the equivalent CO_2 tons emitted by the system can be observed, which corresponds to a reduced travel distance for the hydrogen distribution. As a result, the amount of CO_2 emitted per ton of hydrogen is significantly reduced, assuming

values of 829 kg equivalent CO_2 /ton of H₂, which corresponds to 78.42% of the value obtained in the previous solution. For this configuration, it was found that the contribution from transport to CO_2 emissions decreased from 33% to 15%.

The HSC configuration obtained from the optimization of the GWP objective function is shown in Figure 8. The model in this case is mainly committed to storing the hydrogen in the nearest SDSs from the production facilities, the major reason for the significant decrease in CO_2 emissions generated by the system.



Figure 8. HSC configuration obtained by GWP O.F. optimization.

5.2. Multi-Objective Optimization Results

The simultaneous optimization of both objective functions carried out with the MULTI-GEN optimization software, through which it is possible to obtain a Pareto front with a set of 1000 possible solutions, the one that fulfills both criteria most satisfactorily. Figure 9 shows a Pareto front diagram and the solution chosen by the TOPSIS.

In most cases, the hydrogen storage terminals where higher profits would be made are not close to the points where hydrogen production takes place. However, at some point, the increase in profit is no longer proportional to the increase in emissions, which indicates that there are solutions whose emissions are considerably high ($<5.70 \times 10^7$) and whose contribution to profit is not as significant compared to other solutions found for the model.

The solution selected using the TOPSIS method that best meets both optimization criteria is highlighted in the diagram. With this configuration, a profit of US\$275,197,557/year is achieved, and 51,443,692 kg of equivalent CO_2 is emitted annually. Next, the HSC design based on this configuration is presented, in which important performance indicators were estimated.



Figure 9. Pareto front chart and TOPSIS selected solution.

5.3. Optimal Hydrogen Supply Chain Configuration

Table 12 shows the results of the general economic and environmental system indicators for the optimal solution that TOPSIS selected from the Pareto front.

Table 12. Mu	lti-objective	optimization	results.
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Parameter	Values
Number of production units	50 ALK
Number of transport units	59
Number of storage units	279
Investment capital costs	
Production capital cost	\$373,654,974
Transport capital cost	\$4,366,020
Storage capital cost	\$1,546,384,002
Total capital cost	\$1,924,404,997
Operating costs	
Production	\$188,692,213
Transport	\$3,550,495
Storage	\$29,250,926
Total outcome	\$275,197,558
Average cost per unit $(\$/kg H_2)$	\$3958
Profit estimation	
Total hydrogen production (ton/year)	55,965
Average selling price (\$/ton)	\$8875
Total income	\$496,691,192
Annual profit	\$275,226,444
Net profit margin	55.40%
GWP (kg CO ₂ eq.)	
Production	0
Transport	39,399,360
Storage	12,044,332
Total GWP (kg CO ₂ eq.)	51,443,692
GWP per unit (kg $CO_2/ton H_2$)	919
Optimization time (s)	19,879

The average contribution of each element in the supply chain to the final cost of hydrogen in the storage station can be determined. The cost of hydrogen production

-

1119

Average

3352.11

66.40

519.01

3937.52

8874.71

5,503,968

adds an average of 85% to the total cost of the product in the supply chain. In this case, the transport costs add (on average) 2% to the total costs of hydrogen. Table 13 lists the economic details within the HSC, listing the SDSs selected for hydrogen storage and their supplier production points.

Table 15. Walti objective optimal solution detailed economic report.								
E.P. Location	SDS	Hydrogen Flow (Ton/Year)	Production Cost (\$/Ton)	Transportation Cost (\$/Ton)	Storage Cost (\$/Ton)	Total Cost Per Unit (\$/Ton)	Selling Price (\$/Ton)	Profit (\$/Year)
El Dorado	Culiacán	479	1984.82	35.71	290.91	2311.44	9163.75	3,282,247
El Molino Puga	Tepic	880 1414	1984.82 1984.82	12.03 12.18	290.91 290.91	2287.82 2287.92	9085.17 9085.17	5,981,676 9,611,305
San Miguel del Naranjo	Matehuala	1980	3456.58	86.84	531.24	4074.66	8982.42	9,717,387
Aarón Sáenz Pánuco	Cd. Victoria	1104 1918	3456.58 3436.98	41.85 94.70	531.24 531.24	4029.67 4062.92	8841.90 8841.90	5,312,714 9,166,055
El Mante	Cd. Mante	976	3456.58	10.36	531.24	3998.18	8783.10	4,670,094
Plan de Ayala		1325	3456.58	7.17	531.24	3994.99	8809.97	6,379,864
Alianza Popular	Cd. Valles	1216	3456.58	26.96	531.24	4014.78	8809.97	5,830,960
El Higo		1957	3436.98	37.03	531.24	4005.26	8809.97	9,402,801
Plan de SL	S.L.P.	1400	3456.58	126.67	531.24	4114.49	8835.66	6,609,652
Ameca		1050	3269.16	30.40	500.79	3800.34	8990.47	5,449,620
Bellavista		641	3269.16	28.83	500.79	3798.77	8990.47	3,327,871
José María Morelos	Zapopan	648	3269.16	84.53	500.79	3854.47	8990.47	3,328,129
Melchor Ocampo		1162	3269.16	64.73	500.79	3834.68	8990.47	5,991,035
Tala		1714	3269.16	15.08	500.79	3785.02	8990.47	8,922,122
Quesería		1292	3269.16	124.41	500.79	3894.35	9078.54	6,697,967
Santa Clara	Zamora	655	3269.16	38.56	500.79	3808.50	9078.54	3,451,876
Tamazula		1566	3269.16	59.58	500.79	3829.52	9078.54	8,219,962
Pedernales	Irapuato	436	3269.16	122.64	500.79	3892.58	9016.65	2,234,093
Lázaro Cárdenas	Uruapan	273	3269.16	39.15	500.79	3809.09	9000.49	1,417,253
Calipam		233	3617 14	53 44	557 81	4228.39	8872 10	1.081.986
Constancia	Tehuacán	886	3436.98	64.24	557.81	4059.04	8872.10	4 264 375
Motzorongo	Terruteur	1341	3436.98	58.99	557.81	4053.78	8872.10	6,461,367
Atomainaa		1927	261714	44.01	EE7 01	1218.06	P01E 22	0 500 004
Casasano	Cuornavaca	645	3617.14	24.66	557.81	4218.90	8915.23	3 041 575
Emiliano Zapata	Cuemavaca	1187	3617.14	22.74	557.81	4197.69	8915.23	5,599,716
Mahuiytlán	Toluca	436	3436.98	188 75	557 81	4183 55	8927 21	2 068 232
El Defueio	Totaca	430	2616.90	104.60	EE7 81	4169.55	8856.10	2,000,232
La Margarita	Azcapotzalco	475	3616.80	194.60	557.81	4369.20	8856 19	2,131,316
		1220	3010.00	1/5.05	557.01	4570.45	0000.17	0,477,554
El Potrero Progreso	Añil	1707 913	3436.98 3436.98	167.39 188.65	557.81 557.81	4162.18 4183.45	8904.42 8904.42	8,094,980 4,310,236
Adolfo López		1 / 0 =				1001 00		
Mateos	Oaxaca	1607	3616.80	76.47	557.81	4251.08	8933.10	7,524,008
Tres Valles		2396	3436.98	86.00	557.81	4080.80	8933.10	11,626,131
Benito Juárez	Tuxtla Gutiérrez	1438	3436.98	79.47	557.81	4074.26	8781.48	6,768,982
Huixtla	Tapachula	1202	3616.80	25.98	557.81	4200.59	8927.95	5,682,272
El Modelo	X 1	1079	3436.98	29.96	528.29	3995.24	8816.01	5,201,617
La Gloria	Хагара	1581	3436.98	29.91	528.29	3995.19	8816.01	7,621,725
El Carmen		577	3436.98	19.79	528.29	3985.07	8797.40	2,776,706
La Providencia		811	3436.98	30.11	528.29	3995.38	8797.40	3,894,422
San José de Abajo	Escamela	560	3436.98	33.79	528.29	3999.07	8797.40	2,687,057
San Miguelito		525	3436.98	55.60	528.29	4020.87	8797.40	2,507,667
San Nicolás		1103	3436.98	23.48	528.29	3988.75	8797.40	5,303,935
San Cristobal San Pedro	Tierra Blanca	2584 1273	3436.98 3436.98	28.68 63.21	528.29 528.29	3993.96 4028.49	8773.28 8773.28	12,349,769 6,040,122
Cuatotolapam	Minatitlán	835	3436.98	44.94	528.29	4010.22	8623.23	3,851,868
Santa Rosalía	Villahermosa	781	3436.98	27.31	528.29	3992.58	8733.89	3,702,960
Azsuremex		223	3436 98	208 10	547.35	4192 44	8524 41	966.030
La Jova	Mérida	826	3553.49	79.57	547.35	4180.40	8524.41	3,588,160
San Rafel Pucté		1602	3553.49	74.71	547.35	4175.54	8524.41	6,966,908
-	Total	55,965	-	-	-	-	-	275,198,425

Table 13. Multi-objective optimal solution detailed economic report.

The CO_2 emissions from transport and storage were estimated at 51,443,692 kg equivalent carbon dioxide per year, with transport processes contributing 23%. The optimal design of the HSC network is shown in Figure 10. The hydrogen produced is distributed across a larger number of storage terminals compared with the solution that minimized the GWP. On the other hand, it can also be observed that the distribution distances are usually shorter compared to the solution found, which maximizes the benefits of the system and reaches a central point from both limits.



Figure 10. Optimal design for hydrogen supply chain network.

Investment Assessment and Uncertainty Analysis

An investment assessment within a horizon of 10 years was performed to estimate the internal rate of return (IRR) and payback period, using probability distributions for modeling the uncertain behavior within model inputs. The uncertainty analysis was performed using the Monte Carlo simulation methodology. In Figure 11, IRR ranges are estimated for each hydrogen receiving SDS, where it can be observed that Tepic's HSC is the most profitable case with an average of 28.90%, with minimum and maximum values oof about 15.10% and 34.20%, respectively, while Toluca's HSC is the least profitable one, with an average IRR of 15.80%, and minimum and maximum values of about 7.10% and 21%, respectively. The average IRR for all SDS is 21.50%, which is considered an acceptable value in terms of this study.

In terms of payback period, the average value for all SDS is 5.02 years. As expected, and according to the IRR, the case with the shortest payback period is Tepic, with an average value of 3.94 years, and minimum/maximum values about 3.45 and 6.11 years, respectively. In the case of the largest payback period, Toluca presented 6.12 years on average, and



minimum/maximum values of 4.97 and 9.01 years, respectively. This information is presented in Figure 12.

Figure 11. IRR for each SDS case.



Figure 12. Payback period for each SDS Case.

From the uncertainty analysis it can be concluded that, in most cases, the HSC's deployment might turn out convenient in economic term, due to their acceptable IRR and short payback periods. There are some cases like Tepic's where the case is extremely

convenient and others like Toluca's where economic indicators are not that favorable. The main reason why there are big differences between cases is the wide range of water, electricity, and fuel prices across the country, along with differences in raw sugar cane availability and quality.

6. Conclusions

The information gathered was used to develop a mathematical optimization model that estimates the main economic and environmental indicators of the HSC network operation; the optimization criteria are defined as the annual profits and GWP. The latter refers to the generation of equivalent carbon dioxide that comes from the HSC activities.

Once the optimization criteria were established, it was possible to find the optimal values of the mathematical model using the artificial intelligence tool known as GA, which was used as a first approximation under a single criteria approach to know the limits of the model and obtain the maximum and minimum values of the relevant parameters. Subsequently, both optimization criteria were optimized at the same time, so that many feasible solutions could be generated, from which the one that best met the specified criteria was selected. This optimal configuration selection was made using the TOPSIS multicriteria decision technique. Based on these results, it was possible to observe the different configurations that the hydrogen supply chain can take, as well as the advantages and disadvantages associated with each solution. In addition, the proportion of the contribution of the many elements of the system to investment capital and operating costs, as well as their contribution to the equivalent CO_2 emissions, could be defined. The obtained results show that it turns out to be economically convenient to produce hydrogen in each of the 50 proposed production points for all the scenarios, the storage infrastructure layout distributed across strategic parts of the country exposes several advantages in terms of resource utilization, since the closeness of multiple storage points from each production plant location brings a wide scope of possible solution alternatives. Several differences can be observed between the solutions: in the profit maximization function the profit ratio of 55.67% and 1057 kg of CO_2 per ton of hydrogen is achieved, while the GWP minimization function offers an average profit ratio of 44.72% and 829 kg of CO₂ emitted due to direct hydrogen transportation and storage activities. An evaluation to quantify the economic benefits of using the available electric energy and the utilization of already existing infrastructure for hydrogen production, storage and transportation can be exposed as a starting point for considering the integration of hydrogen as an energy carrier in developing countries, with the infrastructure deployment being the most capital-intensive phase of the energy transition to a hydrogen economy.

The impact of the study relies on putting into perspective the economic and environmental benefits obtained from non-conventional energy sources, and its integration to the national energy grid, directing such energy to sectors with higher demand, like the transportation sector. The knowledge acquired supports the decision-making process during the exploration of new alternatives in the search for supplying the energy deficit in a specific region—Mexico, in this case. This paradigm opens the scope of research to new possibilities for considering economically and environmentally convenient solutions, under resource constraints and the uncertainty contained in the system. The proposed model was validated in a case study of the Mexican sugarcane industry.

Further research is recommended by adding refueling station location capabilities to the model to complete the final HSC echelon. It is also recommended to evaluate social risk by quantifying possible hazards and optimizing the risk criteria along the economic and environmental objective functions. It can be highlighted from the reviewed literature that there are few studies that integrate biomass waste utilization and hydrogen production, and even less studies using electrolysis in a biomass to power to hydrogen configuration using existing infrastructure in all the HSC echelons. As far as we know, this is the only study that considers this type of hydrogen production scheme applied to Mexican territory. Some model limitations include that it was designed for evaluating an operation year that is divided in two periods. Moreover, the model was built for considering only the electrolysis process for hydrogen production, and existing storage infrastructure, which restricts the possibilities of the model in terms of specific location of such facilities.

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Appendix A. Calculations for Estimating Model Inputs

In Equation (A1), the bagasse availability is calculated in tons for each sugar mill *i* using the quantity of raw sugarcane and the mass fraction of bagasse, both represented by probability distributions.

$$AvBag_i = tCane_i * \%BagInCane_i, \ \forall i = 1...50$$
(A1)

In Equation (A2) Operation hours parameter for each period z is calculated considering the number of operation days in each period z (modeled using probability distributions) and the downtime during operation.

$$OpHrs_{z} = (DOp_{z} * 24) * (100\% - \%Downtime), \forall 1, 2$$
 (A2)

The quantity of bagasse per hour combusted in the boilers of each sugar mill i is calculated using Equation (A3).

$$BagBrn_{iz} = \frac{AvBag_i}{OpHrs_z} , \forall z = 1, 2; i = 1...50$$
(A3)

The lower bagasse energy content in cal/ton is estimated using Equation (A4) extracted from [32], where bagasse humidity ($BagHum_i$) is an uncertain parameter, modeled by probability distributions for each mill *i*.

$$BagECont_i = 17,799.3 - 20,305.98 * BagHum_i \forall i = 1...50$$
 (A4)

Equation (A5) calculates the bagasse energy flow per hour.

$$BagEFlow_{iz} = BagBrn_{iz} * BagECont_i, \forall i = 1...50$$
(A5)

Steam production in tons at each sugar mill *i* is calculated using Equation (A6).

$$Steam_{iz} = \frac{BagEFlow_i \left(\frac{BoilerEf}{DEnthalpy}\right)}{1000}, \ \forall \ i = 1...50$$
(A6)

Electric power generation in MWh at each mill *i* is estimated using Equation (A7).

$$ElecPwr_{iz} = \frac{Steam_i - (\%SelfCons * Steam_i)}{GenPerf}, \forall i = 1...50$$
(A7)

Table A1. Complementary calculations glossary.

Variable	Description
%Downtime	Fraction of inactivity time (%)
%SteamSelfCons	Percentage of steam consumption (%)
AvBag _i	Available bagasse at each sugar mill <i>i</i> (tons)
BagBrn _{iz}	Bagasse burning flow at mill i during period z (tons/hour)
BagECont _i	Bagasse energy content at mill <i>i</i> (kcal/ton)
BagEFlow _{iz}	Bagasse energy content flow at mill i (kcal/hour)
BagHum _i	Mass fraction of humidity content at mill <i>i</i> (%)
BagInCana	Mass fraction of bagasse in sugar cane at each sugar mill <i>i</i>
DaginCane _i	(bagasse tons/sugarcane tons)
BoilerEf	Boiler efficiency (%)
DEnthalpy	Steam delta enthalpy (kcal/cm ²)
ElecPwr _{iz}	Electric power generation at mill i during period z (MWh)
GenPerf	Electric generator turbine performance (steam tons/MWh)
DOpz	Operation days during period z (days)
OpHrsz	Operation hours during period z (hours)
Steam _{iz}	Steam production at mill i during period z (tons/hour)
tCane _i	Sugar cane available at each sugar mill i (tons)

Appendix **B**

Table A2. Probability distributions for bagasse availability modelling.

Sugar Mill	tCane (Tons)	BagInCane	BagHum (%)	
Aaron Sáenz	RiskLaplace (1,062,951, 162,684.8)	RiskExtvalueMin (0.28208, 0.0052635)	RiskPareto (45.277, 50.01)	
Alianza popular	RiskPareto (15.534, 1,091,755)	RiskPareto (17.647, 0.24674)	RiskUniform (42.853, 54.287)	
Ameca	RiskUniform (1,032,772, 1,314,071)	RiskExtvalueMin (0.24318, 0.007397)	RiskPareto (47.183, 49.841)	
Atencingo	RiskUniform (1,539,709, 1,931,089)	RiskExtvalueMin (0.28181, 0.0017849)	RiskPareto (227.42, 50.64)	
Azsuremex	RiskUniform (111,320, 236,294)	RiskExtvalueMin (0.35416, 0.024192)	RiskExtvalueMin (51.1982, 0.88002)	

Motzorongo

Panuco

203,462.3613)

RiskUniform (1,299,749, 1,906,185)

Sugar Mill	tCane (Tons)	BagInCane	BagHum (%)	
Bellavista	RiskUniform (544,556, 767,230)	RiskLaplace (0.26549, 0.0042446)	RiskExtvalueMin (51.7613, 0.39862)	
Benito Juárez	RiskUniform (915,567, 1,669,420)	RiskExtvalueMin (0.29877, 0.0024705)	RiskExtvalueMin (51.2247, 0.46764)	
Calipam	RiskLaplace (185,777.6667, 24,246.0872)	RiskPareto (17.107, 0.31175)	RiskExtvalueMin (50.8465, 0.70592)	
Casasano La abeja	RiskPareto (17.203, 581,923)	RiskPareto (34.074, 0.25738)	RiskKumaraswamy (0.075606,0.18032, 46.1,51.18)	
Constancia	RiskPareto (10.619, 751,826)	RiskLaplace (0.27543, 0.010389)	RiskPareto (98.361, 49.106)	
Cuatolapam	RiskPareto (8.3168, 669,112)	RiskExtvalue (0.283955, 0.016257)	RiskUniform (49.9225, 51.9875)	
El Carmen	RiskExtvalueMin (565,173.2923, 110,856.4894)	RiskExtvalueMin (0.323, 0.010938)	RiskKumaraswamy (0.078411, 0.19166, 50.629, 53.053)	
El Higo	RiskNormal (1,758,914, 89,388)	RiskNormal (0.3233037, 0.0076643)	RiskUniform (51.7425, 56.0475)	
El Mante	RiskUniform (606,942, 1,101,350)	RiskKumaraswamy (0.076156, 0.18217, 0.296446, 0.314114)	RiskLaplace (51.1, 0.44173)	
El Modelo	RiskExtvalueMin (1,059,250.2819, 96,686.0013)	RiskPareto (25.15, 0.26806)	RiskTriang (48.7756, 50.41, 50.41)	
El Molino	RiskPareto (5.0488, 681,227)	RiskPareto (77.099, 0.27102)	RiskPareto (135.6, 50.25)	
El Potrero	RiskNormal (1,629,870, 78,703)	RiskPareto (66.285, 0.2666)	RiskTriang (47.8444, 50.61, 50.61)	
El Refugio	RiskExtvalueMin (460,201.2784, 48,913.5247)	RiskPareto (145.56, 0.28926)	RiskPareto (63.715, 49.85)	
El Dorado	RiskNormal (451,622, 124,580)	RiskPareto (20.357, 0.26842)	RiskTriang (48.5712, 51.865, 51.865)	
Emiliano Zapata	RiskUniform (1,001,194, 1,241,654)	RiskPareto (12.091, 0.26608)	RiskKumaraswamy (0.079838, 0.18665, 48.426, 54.43)	
Huixtla	RiskUniform (865,578, 1,386,963)	RiskLaplace (0.27892, 0.016637)	RiskLaplace (50.12, 0.52322)	
José Ma Morelos	RiskLaplace (573,662, 97,203.5759)	RiskLaplace (0.30045, 0.0091253)	RiskTriang (48.274, 52.01, 52.01)	
La Gloria	RiskExtvalue (1,387,788, 128,254)	RiskLaplace (0.27426, 0.0057259)	RiskKumaraswamy (0.073444, 0.19034, 47.59, 50.08)	
La Joya	RiskPareto (6.2914, 662,566)	RiskUniform (0.260448, 0.28558)	RiskPareto (25.533, 48.01)	
La Margarita	RiskExtvalueMin (1,114,659.5247, 65,442.6361)	RiskPareto (69.982, 0.29615)	RiskKumaraswamy (0.081137, 0.18753, 48.63, 51.85)	
La providencia	RiskUniform (622,858, 921,585)	RiskPareto (20.115, 0.25945)	RiskKumaraswamy (0.074596, 0.18167, 47.5, 51.71)	
Lázaro Cárdenas	RiskUniform (220,651, 420,987)	RiskPareto (25.779, 0.21863)	RiskKumaraswamy (0.074316, 0.18577, 49.732, 51.932)	
López Mateos	RiskLaplace (1,552,596, 164,296.2606)	RiskExtvalue (0.2769587, 0.004824)	RiskPareto (51.682, 50.35)	
Mahuixtlan	RiskUniform (345,480, 488,480)	RiskExtvalueMin (0.27271, 0.0014487)	RiskLaplace (49.9522, 0.10657)	
Melchor Ocampo	RiskLaplace (1,110,585, 54,862.1928)	RiskLaplace (0.28742, 0.0042788)	RiskKumaraswamy (0.075628, 0.18143, 50.36, 53.11)	
Matanana	RiskLaplace (1,301,433,	Di-1.D-mate (24 E22, 0.25(24)	\mathbf{P}_{i-1} , \mathbf{J}_{i-1} ,	

RiskPareto (24.532, 0.25684)

RiskPareto (48.802, 0.31117)

RiskLaplace (49.89, 0.33796)

RiskExtvalue (50.1014, 1.0208)

Table A2. Cont.

Variable	Probability Distribution	Unit
OpDays during harvesting period $(z = 1)$	Pert (155,160,179)	Days
OpDays during non-harvesting season ($z = 2$)	Pert (30,32.82,35.65)	Days
AvBag for energy production $(z = 1)$	Pert (52%,52.42%,52.848%)	% de Bagazo
AvBag for energy production $(z = 2)$	Pert (7%,7.33%,7.68%)	% de Bagazo

 Table A3. Probability distributions for operation days and bagasse utilization.

Appendix C

 Table A4. Probability distributions for electricity and water prices modelling.

Region (r)	Electricity Price (\$/MW)	Water Price (\$/m ³)
Northwest	Pert (26.23, 35.23, 44.19)	Pert (0.18, 0.40, 0.56)
North	Pert (26.23, 35.23, 44.19)	Pert (0.18, 0.40, 0.56)
Northeast	Pert (41.06, 64.33, 79.26)	Pert (0.07, 0.24, 0.73)
West	Pert (37.21, 60.66, 76.98)	Pert (0.13, 0.23, 0.44)
Center	Pert (42.99, 67.58, 86.21)	Pert (0.038, 0.11, 0.238)
South	Pert (42.99, 67.58, 86.21)	Pert (0.025, 0.093, 0.159)
Gulf	Pert (41.23, 64, 81.47)	Pert (0.105, 0.236, 0.236)
Southeast	Pert (42.42, 66.28, 81)	Pert (0.0951, 0.190, 0.190)

Appendix D

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Table A5. Storage availability and probability distributions for fuel prices modelling.

Region	State	ID (t)	Name	Design Capacity (Barrels)	Utilization Rate	Fuel Price (MX\$)
	B.C. Norte	1	ROSARITO	1,393,000	0.73	RiskLogistic (19.20514, 0.18998)
	B.C. Norte	2	ENSENADA	135,000	0.74	RiskLogistic (19.39158, 0.18992)
	B.C. Norte	3	MEXICALI	155,000	0.76	RiskLogistic (19.45041, 0.19028)
	Sonora	4	NOGALES	45,000	0.77	RiskLaplace (19.6776, 0.30941)
	Sonora	5	MAGDALENA	40,000	0.67	RiskLaplace (19.6675, 0.32126)
	Sonora	6	HERMOSILLO	125,000	0.69	RiskLaplace (19.3266, 0.32346)
	Sonora	7	GUAYMAS	750,000	0.71	RiskLaplace (19.1096, 0.32513)
Northwest	Sonora	8	CIUDAD OBREGÓN	170,000	0.66	RiskLaplace (19.3257, 0.32251)
	Sonora	9	NAVOJOA	35,000	0.72	RiskLoglogistic (15.3836, 4.3047, 24.893)
	B.C. Sur	10	LA PAZ	230,000	0.7	RiskExtvalueMin (19.6679, 0.37766)
	Sinaloa	11	TOPOLOBAMPO	760,000	0.71	RiskTriang (17.9917, 19.7924, 20.1903)
	Sinaloa	12	GUAMÚCHIL	105,000	0.71	RiskTriang (18.7036, 20.2588, 20.8076)
	Sinaloa	13	CULIACÁN	115,000	0.74	RiskTriang (18.8595, 20.0375, 20.6478)
	Sinaloa	14	MAZATLÁN	620,000	0.75	RiskWeibull (5.175, 1.5556)
	Nayarit	15	TEPIC	95,000	0.7	RiskLaplace (19.6781, 0.27458)
	Chihuahua	16	CIUDAD JUÁREZ	245,000	0.75	RiskLaplace (18.6858, 0.32223)
	Chihuahua	17	CHIHUAHUA	420,000	0.8	RiskLaplace (19.1491, 0.30599)
North	Durango	18	DURANGO	75,000	0.69	RiskLaplace (19.6863, 0.27829)
	Chihuahua	19	PARRAL	55,000	0.73	RiskLaplace (19.6639, 0.3026)
	Durango	20	GÓMEZ PALACIO	475,000	0.72	RiskLaplace (19.5364, 0.30492)
	Coahuila	21	SABINAS	100,000	0.73	RiskLaplace (19.5153, 0.319)
	Coahuila	22	MONCLOVA	235,000	0.77	RiskLaplace (19.4711, 0.33153)
	Tamaulipas	23	NUEVO LAREDO	75,000	0.78	RiskLaplace (19.34, 0.3101)
	Tamaulipas	24	REYNOSA	23,500	0.62	RiskLaplace (19.3046, 0.33903)
	Nuevo León	25	SANTA CATARINA	850,000	0.69	RiskLoglogistic (18.23, 1.0127, 6.1548)
Northoast	Nuevo León	26	SALTILLO	151,000	0.78	RiskLaplace (19.4162, 0.33261)
Normeast	Nuevo León	27	CADEREYTA	100,000	0.75	RiskLoglogistic (17.4049, 1.7244, 10.6)
	SLP	28	MATEHUALA	33,000	0.74	RiskLoglogistic (18.1427, 1.272, 7.2404)
	Tamaulipas	29	CIUDAD VICTORIA	195,000	0.75	RiskLoglogistic (17.8593, 1.2518, 7.2491)
	Tamaulipas	30	CIUDAD MANTE	21,000	0.71	RiskLaplace (19.0238, 0.35456)
	SLP	31	CIUDAD VALLES	75,000	0.74	RiskLoglogistic (17.792, 1.2502, 7.2677)
	SLP	32	SAN LUIS POTOSÍ	100,000	0.69	RiskLaplace (19.1377, 0.34971)

Region	State	ID (t)	Name	Design Capacity (Barrels)	Utilization Rate	Fuel Price (MX\$)
	Zacatecas	33	ZACATECAS	85,000	0.68	RiskLaplace (19.5594, 0.3408)
	Aguascalientes	34	AGUASCALIENTES	105,000	0.65	RiskLaplace (19.5644, 0.33496)
	Guanajuato	35	LEÓN	110,000	0.73	RiskLaplace (19.5183, 0.32495)
	Jalisco	36	ZAPOPAN	390,000	0.72	RiskLoglogistic (18.47193, 0.94869, 5.5621)
	Michoacán	37	ZAMORA	90,000	0.71	RiskLaplace (19.6637, 0.32359)
	Guanajuato	38	IRAPUATO	430,000	0.73	RiskLaplace (19.5297, 0.31447)
West	Guanajuato	39	CELAYA	180,000	0.72	RiskLaplace (19.5235, 0.32444)
	Michoacán	40	URUAPAN	130,000	0.79	RiskLoglogistic (18.1592, 1.2971, 7.5307)
	Colima	41	COLIMA	55,000	0.79	RiskLoglogistic (18.1186, 1.1784, 7.112)
	Michoacán	43	MORELIA	135,000	0.73	RiskLaplace (19.5371, 0.30931)
	Jalisco	44	EL CASTILLO	345,000	0.64	RiskLoglogistic (18.52751, 0.91876, 5.1437)
	Michoacán	45	LÁZARO CÁRDENAS	830,000	0.73	RiskLaplace (18.7947, 0.33233)
	Colima	46	MANZANILLO	465,000	0.71	RiskLaplace (18.773, 0.31928)
	Morelos	47	CUAUTLA	60,000	0.75	RiskLaplace (19.3723, 0.31474)
	Puebla	48	PUEBLA	425,000	0.71	RiskLaplace (19.2147, 0.31217)
	Puebla	49	TEHUACÁN	45,000	0.72	RiskLaplace (19.2166, 0.32322)
	Querétaro	50	QUERÉTARO	230,000	0.72	RiskLaplace (19.4604, 0.31185)
Center	Edo. De México	51	SAN JUAN IXHUATEPEC	225,000	0.62	RiskLoglogistic (18.26004, 0.9894, 5.5995)
	Morelos	52	CUERNAVACA	135,000	0.76	RiskLoglogistic (18.0638, 1.2074, 7.239)
	Edo. De México	53	TOLUCA	195,000	0.69	RiskLoglogistic (17.5463, 1.7658, 11.077)
	CDMX	54	AZCAPOTZALCO	1,500,000	0.74	RiskLoglogistic (18.0401, 1.1, 6.6497)
	Hidalgo	55	PACHUCA	170,000	0.71	RiskLoglogistic (18.0877, 1.0409, 6.3148)
	CDMX	56	BARRANCA DEL MUERTO	125,000	0.73	RiskLoglogistic (18.26353, 0.99106, 5.6165)
	CDMX	57	AÑIL	235,000	0.67	RiskLoglogistic (18.24477, 0.99028, 5.7233)
	Guerrero	58	IGUALA	60,000	0.7	RiskLaplace (19.4913, 0.30988)
	Guerrero	59	ACAPULCO	235,000	0.62	RiskLaplace (19.1366, 0.31701)
	Oaxaca	60	OAXACA	110,000	0.76	RiskLaplace (19.3487, 0.31066)
South	Oaxaca	61	SALINA CRUZ*	1,479,000	0.76	RiskLogistic (18.86307, 0.18242)
Journ	Oaxaca	62	SALINA CRUZ	205,000	0.75	RiskLogistic (18.86307, 0.18242)
	Chiapas	63	TUXTLA GUTIERREZ	105,000	0.71	RiskLogistic (19.02036, 0.17406)
	Chiapas	64	TAPACHULA*	24,500	0.62	RiskLaplace (19.3375, 0.30994)
	Chiapas	65	TAPACHULA II	65,000	0.78	RiskLaplace (19.3375, 0.30994)
	Veracruz	66	POZA RICA	55,000	0.7	RiskLaplace (18.8571, 0.31891)
	Veracruz	67	PEROTE	25,000	0.74	RiskLoglogistic (17.8551, 1.265, 7.42)
	Veracruz	68	XALAPA	45,000	0.6	RiskLoglogistic (17.8126, 1.2419, 7.1738)
Gulf	Veracruz	69	ESCAMELA	98,000	0.72	RiskLaplace (19.0548, 0.32629)
Gui	Veracruz	70	VERACRUZ	536,000	0.66	RiskLaplace (18.4593, 0.32756)
	Veracruz	71	TIERRA BLANCA	71,000	0.69	RiskLaplace (19.0025, 0.31694)
	Veracruz	72	MINATITLAN	10,000	0.59	RiskLogistic (18.67753, 0.18353)
	Tabasco	73	VILLAHERMOSA	328,500	0.72	KiskLaplace (18.9172, 0.31921)
	Yucatán	74	PROGRESO	280,500	0.71	RiskLaplace (18.4223, 0.32023)
Southeast	Campeche	75	CAMPECHE	265,000	0.79	KiskLaplace (18.9739, 0.31608)
	Yucatán	76	MERIDA	148,000	0.77	RiskLaplace (18.4635, 0.31978)

Table A5. Cont.

Appendix E

Distan	a Matrix (here)						No	orthwest (BC, BCS, S	Sonora, Sinaloa, Na	iyarit)								North (0	Chihuahua, D	Durango)	
Distan	Le Matrix (kiii)	ROSARITO E	ISENADA MI	EXICALI NO	IGALES MA	AGDALENA HE	RMOSILLO G	SUAYMAS CIUDA	D OBREGÓN NA	A A OLOV	A PAZ TO	OPOLOBAMPO	GUAMÚCHIL C	ULIACÁN MA	ZATLÁN	TEPIC	CD JUAREZ C	HIHUAHUA	DURANGO	PARRAL	GOMEZ PALACIO
	El Molino	2052	2070	1873	1430	1343	1150	1021	903	824	913	694	583	474	271	6.5	1449	1145	481	895	707
Northwest	El Dorado	1633	1652	1455	1012	924	732	603	484	405	495	275	168	55.5	175	448	1400	1058	432	847	658
	Puga	2059	2244	1880	1437	1350	1157	1028	909	830	920	700	590	481	278	19.2	1455	1152	488	902	713
	Aaron Saenz	2688	2753	2488	1989	1946	2155	2031	1905	1838	4119	1557	1444	1344	1131	862	1586	1184	774	1069	735
	Alianza Ponular	2727	2792	2527	2219	2129	1940	1816	1690	1623	4189	1488	1374	1274	1061	793	1637	1268	709	1153	84
	El Mante	2714	2780	2515	2002	1960	2169	2045	1919	1952	4146	1545	1422	1222	1110	850	1591	1212	771	1097	76/
Northeast	Plan de Avala	2714	2920	2574	2265	2176	1097	1962	1727	1660	4225	1545	1432	1221	1109	830	1693	1212	771	11097	0.0
	Plan de Ayala	2//3	2839	2574	2265	2176	1987	1862	1/3/	1669	4235	1534	1421	1321	1108	839	1682	1313	/55	1198	865
	Pian de SL	2682	2683	2710	2012	1973	1933	1803	1685	1610	1716	1475	1381	1257	1050	847	1628	1257	787	1129	807
	San Miguel	2876	z647	2674	1976	1937	1875	1746	1627	1552	1658	1418	1323	1199	992	789	1592	1221	729	1093	771
	Ameca	2253	2272	2074	1629	1544	1351	1223	1104	1025	1115	895	783	676	473	192	2089	1237	702	1097	799
	Bellavista	2279	2279	2100	1655	1570	1377	1248	1129	1050	1140	920	810	701	498	226	1572	1203	667	1088	764
	Jose Ma Morelos	2442	2477	2278	1832	1747	1554	1425	1306	1231	1318	1097	1002	878	673	398	1758	1387	851	1259	949
	Lazaro Cardenas	2524	2560	2360	1914	1829	1636	1507	1388	1313	1400	1179	1084	960	756	480	1721	1350	814	1222	913
West	Melchor Ocampo	2398	2434	2234	1788	1703	1511	1381	1262	1187	1274	1053	958	834	630	354	1714	1343	808	1215	906
west	Pedernales	2632	2668	2468	2022	1937	1744	1615	1496	1421	1508	1287	1192	1068	864	588	1739	1368	832	1240	930
	Quesería	2383	2419	2219	1773	1688	1495	1366	1247	1172	1259	1038	943	819	615	339	1699	1328	793	1200	891
	Santa Clara	2442	2477	2278	1832	1747	1554	1425	1306	1231	1318	1097	1002	878	673	398	1677	1308	772	1179	870
	Tala	2232	2268	2068	1622	1538	1345	1215	1097	1022	1108	897	702	668	464	189	1567	1109	662	1092	750
	Tamanula	2274	2410	2211	1765	1690	1497	1259	1220	1164	1251	1020	0.25	911	-04	221	1695	1214	701	1203	13
	azuta	23/4	2410	2211	1/03	1000	140/	1005	1235	1104	1231	1029	535	1000	000	331	1005	1510	/81	1202	878
	Atencingo	2922	2988	2722	2307	2218	2029	1905	1779	1712	4353	1576	1463	1363	1150	881	1981	1612	1077	1498	1174
Center	Calipam	3021	3087	2822	2407	2317	2128	2004	1878	1811	4453	1676	1562	1463	1250	981	2067	1698	1163	1584	1260
	Casasano	2858	2923	2658	2243	2154	1965	1840	1715	1647	4289	1512	1399	1299	1086	817	1883	1514	979	1399	1076
	Emiliano Zapata	2878	2944	2679	2264	2174	1985	1861	1735	1668	4310	1533	1420	1320	1107	838	1909	1540	1005	1426	1102
	El refugio	3114	3179	2914	2499	2410	2221	2096	1971	1903	4545	1768	1655	1555	1342	1073	2115	1764	1232	1622	1318
South	Huixtla	3873	3939	3674	3259	3169	2980	2856	2730	2663	5305	2528	2414	2315	2102	1833	2875	2523	1991	2392	2073
	La margarita	3158	3223	2958	2543	2454	2265	2140	2015	1947	4589	1812	1699	1599	1386	1117	2158	1764	1232	1622	1318
	López Mateos	3210	3275	3010	2595	2506	2317	2192	2067	1999	4641	1864	1751	1651	1438	1169	2274	1922	1328	1781	1414
	Azsuremex	3733	3799	3534	3119	3029	2840	2716	2590	2523	5165	2388	2274	2174	1961	1693	2735	2383	1851	2242	1937
	Benito Juárez	3471	3537	3272	2857	2767	2578	2454	2328	2261	4903	2126	2012	1912	1699	1431	2473	2121	1589	1980	1675
	Constancia	3114	3179	2914	2499	2410	2221	2096	1971	1903	4545	1768	1655	1555	1342	1073	2115	1764	1232	1622	1318
	Cuatotolapan	3297	3357	3092	2677	2588	2399	2274	2149	2081	4723	1946	1833	1733	1520	1251	2293	1942	1410	1800	149/
	El Carman	2028	2104	2820	2424	2224	2145	2021	1995	1929	4470	1692	1579	1479	1267	009	2040	1699	1156	1547	1243
	El Mise	2065	2020	2000	2250	2354	2072	1047	1000	1754	4470	1610	1575	1406	1102	034	1754	1400	970	1261	
	Ei Higo	2903	5050	2703	2550	2201	2072	1547	1822	1/34	4350	1019	1500	1408	1155	524	1/34	1402	870	1201	530
	EI MODEIO	3156	3222	2957	2542	2452	2263	2139	2013	1946	4588	1811	1697	1597	1384	1115	2136	1/85	1253	1643	1335
	El Potrero	3064	3129	2864	2449	2360	2171	2046	1921	1853	4495	1718	1605	1505	1292	1023	2065	1714	1182	1572	1268
	La Gloria	3156	3222	2957	2542	2452	2263	2139	2013	1946	4588	1811	1697	1597	1384	1115	2136	1785	1253	1643	1339
	La providencia	3091	3156	2891	2476	2387	2198	2073	1948	1880	4522	1745	1632	1532	1319	1050	2092	1741	1209	1599	1295
Gulf	Mahuixtlán	3092	3157	2892	2477	2388	2198	2074	1949	1881	4523	1746	1633	1533	1320	1051	2072	1721	1188	1579	1275
	Motzorongo	3103	3168	2903	2488	2399	2210	2085	1960	1892	4534	1757	1644	1544	1331	1062	2104	1753	1221	1611	1307
	Panuco	2998	3063	2798	2383	2294	2105	1980	1855	1787	4429	1652	1539	1439	1226	957	1787	1435	903	1294	989
	Progreso	3278	3343	3078	2663	2574	2385	2260	2135	2067	4709	1932	1819	1719	1506	1237	2279	1928	1396	1786	1482
	San Cristobal	3212	3277	3012	2597	2508	2319	2194	2069	2001	4643	1866	1753	1653	1440	1171	2213	1862	1330	1720	1416
	San José de Abajo	3077	3142	2877	2462	2373	2184	2059	1934	1866	4508	1731	1618	1518	1305	1036	2078	1727	1195	1585	1281
	San Miguelito	3064	3129	3064	3129	2864	2449	2360	2171	2046	1921	1853	4495	1718	1605	1505	1292	1023	2065	1714	1183
	San Nicolas	3064	3129	3064	3129	2864	2449	2360	2171	2046	1921	1853	4495	1718	1605	1505	1292	1023	2065	1714	1183
	San Pedro	3278	3343	3078	2663	2574	2385	2260	2135	2067	4709	1932	1819	1719	1506	1237	2279	1928	1396	1786	1483
	Santa Rosalia	3471	3537	3272	2857	2767	2579	2454	2328	2261	4903	2126	2012	1912	1699	1431	2472	2121	1590	1990	1675
	June Notes	34/1	3337	3272	2037	2/0/	23/8	2434	2010	1042	4703	2126	2012	1512	1364	1451	2473	1000	1324	1980	1675
	ires Valles	3153	3218	2953	2538	2449	2260	2135	2010	1942	4584	1807	1694	1594	1381	1112	2154	1803	1271	1661	1357
Southeast	La Joya	3838	3094	3639	3224	3134	2945	2821	2695	2628	5270	2493	2379	2280	2067	1798	2840	2488	1956	2347	2043
	Pucte	4105	4276	4011	3596	3506	3317	3193	3067	3000	5642	2865	2751	2651	2438	2169	3212	2860	2328	2719	2414
		-			Nort	heast (NL, Tam, S	LP, Coa)										West (Zacate	cas, Aguascalie	entes, Jalisco	, Colima, Mi	choacán y Gto)
SABINAS N	NUEVO	LAREDO REY	IOSA SANTA C	ATARINA	SALTILLO	CADEREYTA N	ATEHUALA C	LIUDAD VICTORIA	CIUDAD MANTE	CIUDAD V	ALLES S	AN LUIS POTOSÍ	ZACATECAS AG	GUASCALIENTES	LEÓN	ZAPOPAN	ZAMORA IR	APUATO CEL	AYA URUA	APAN COL	IMA MORELIA E
1103	991	1268	1274	1047	978	1096	737	87:	2 850		839	561	527	4	12 417	1	91 356	488	538	467	380 471
1104	992	1270	1276	1049	979	1098	1219	1354	4 1332		1321	1042	733	8	50 856	6	30 795	892	976	906	819 910
1103	991	1268	1274	1047	978	1096	737	87	2 850		839	561	539	4	23 429	2	03 368	500	549	479	392 483
748	602	627	437	412	471	381	304	113	2 31.1		125	311	483	4	75 498	6	53 651	503	548	721	848 679
844	738	837	610	606	561	554	306	276	6 146		50	246	418	4	10 428	5	88 573	438	483	656	783 542
737	630	455	465	440	400	409	201	127	2 44			240	490	-	72 495	6	50 626	500	5.45	719	845 604

1103	991	1268	1274	1047	978	1096	737	872	850	839	561	527	412	417	191	356	488	538	467	380	471	229	702	460
1104	992	1270	1276	1049	979	1098	1219	1354	1332	1321	1042	733	850	856	630	795	892	976	906	819	910	668	1141	898
1103	991	1268	1274	1047	978	1096	737	872	850	839	561	539	423	429	203	368	500	549	479	392	483	241	714	471
748	602	627	437	412	471	381	304	112	31.1	125	311	483	475	498	653	651	503	548	721	848	679	645	942	927
844	738	837	610	606	561	554	306	276	146	50	246	418	410	428	588	573	438	483	656	783	542	580	877	862
737	630	655	465	440	499	409	301	132	4.4	99	308	480	472	495	650	636	500	545	718	845	604	642	939	924
890	784	752	562	536	607	505	352	229	97	1.6	291	460	550	420	635	619	487	498	702	823	587	621	918	908
830	724	746	567	540	546	512	291	231	99	44	318	488	584	501	663	647	514	526	730	851	615	649	946	935
794	688	707	528	501	510	473	255	192	60	84	260	430	426	444	605	589	456	498	672	793	557	591	888	878
1089	1089	1087	1072	1072	792	921	610	739	721	703	416	414	293	299	72	239	337	417	349	234	352	110	580	318
1054	948	1053	1037	821	757	887	576	705	688	669	382	381	259	265	49	202	299	383	312	176	315	66	500	260
1241	1134	1232	1221	1008	944	1069	757	886	896	850	563	562	440	446	231	383	481	565	493	222	496	247	476	131
1150	1043	1137	1075	911	866	972	611	740	723	704	428	525	403	297	296	140	228	234	18	32	132	282	214	565
1197	1091	1189	1177	965	901	1025	713	842	825	806	519	518	396	402	187	339	437	521	449	176	453	203	499	179
1168	1061	1155	1092	929	884	990	629	758	740	722	446	543	421	315	404	268	246	252	133	589	150	390	277	673
1182	1076	1174	1161	949	889	1010	698	827	810	791	504	503	381	387	172	324	422	506	270	34.5	438	188	407	119
1145	1038	1132	1069	906	861	967	606	735	717	699	423	482	360	236	214	81	225	275	82	219	226	200	313	303
1049	943	1046	1033	822	758	882	570	699	682	663	376	383	253	259	32.5	199	297	378	310	214	313	70.7	541	299
1168	1062	1165	1153	941	877	1001	690	819	801	783	496	503	373	379	206	175	287	336	213	88.4	309	180	398	173
1328	1222	1315	1075	1090	1045	1151	789	918	741	669	607	789	681	575	757	621	509	456	604	897	489	743	685	982
1417	1311	1404	1131	1179	1133	1240	870	862	789	718	687	870	762	656	838	702	590	537	684	1024	570	825	901	1115
1231	1124	1217	1032	992	947	1053	691	821	699	784	509	692	584	478	640	503	412	359	486	824	371	626	702	908
1257	1151	1244	1086	1116	974	1080	718	847	752	811	536	718	611	504	663	526	438	386	509	847	394	649	592	931
1460	1249	1444	1112	1222	1172	1272	914	979	769	684	727	028	820	712	202	759	647	505	742	1080	627	997	920	1164
2220	2109	2204	1792	1992	1922	2022	1674	1557	1449	1262	1497	1687	1584	1479	1661	1524	1412	1259	1507	1945	1202	1646	1732	1979
1504	1202	1499	1077	1363	1217	1216	059	2557	722	649	791	945	927	721	012	777	665	612	750	1092	645	2040	976	1192
1556	1444	1540	1129	1210	1269	1310	1010	892	794	700	922	1018	910	802	026	940	727	695	922	1170	717	972	1049	1254
2079	1972	2066	1641	1941	1705	1642	1540	1379	1207	1245	1257	1591	1455	1222	1500	1276	1266	1212	1262	1690	1254	1491	1605	1795
1912	1705	1799	1272	1572	1529	1275	1272	1112	1029	1029	1090	1219	1455	1071	1229	1114	1004	951	1101	1419	002	1220	1203	1522
1456	1249	1442	1065	1373	1172	1375	017	804	721	720	724	929	820	712	205	750	647	505	742	1080	627	997	920	1164
1625	1510	1612	1196	1250	1241	1199	1096	925	952	952	902	1120	1014	901	1059	024	825	771	922	1229	912	1050	1162	1244
12023	1285	1279	1106	1350	1109	1214	952	922	772	700	670	996	760	629	805	691	571	519	669	095	550	796	910	1090
972	967	820	601	612	690	595	424	212	192	108	271	568	569	574	722	707	550	426	820	912	711	772	1062	1017
1450	1149	1166	920	960	1167	927	911	669	596	505	729	1004	957	724	072	709	669	614	726	1092	677	914	1032	1197
1422	1215	1409	1057	1192	1152	1244	992	796	772	772	700	911	796	662	921	706	597	542	694	1011	595	977	925	1116
1450	1144	1465	976	956	1190	079	920	665	592	591	727	1004	957	724	0.72	709	669	614	796	1092	677	014	1039	1197
1420	1224	1417	1062	1192	1146	1252	901	801	778	591	709	029	912	690	959	722	624	570	721	1022	612	940	967	1142
1400	1204	1202	045	975	1116	947	961	684	612	611	679	929	792	670	959	724	602	550	722	1019	612	940	962	1172
1450	1242	1426	1071	1211	1166	1072	011	810	727	727	729	2102	2102	2102	2102	2102	2102	2102	2102	2102	2102	2102	2102	2102
071	264	703	543		636	1075		264	104	,,,,	413	5105	5105	5103	3105	740	5103	647	5105	045	3103	3105	1000	1050
1426	1229	1422	1024	1197	1152	1026	470	772	184	699	714	1125	1000	977	1045	920	911	757	009	1225	799	1026	1149	1220
1450	1.52.5	1411	1034	1157	1367	1050	1010		770	370	#30	1050	1000		070	014	745	601	843	1110	733	070	1002	1350
1426	1220	1412	1059	1312	1142	1249	997	799	775	778	704	924	799	676	975	710	610	556	707	1024	509	970	1083	11204
1572	1269	1297	1057	1100	1127	1240	971	906	724	723	690	911	796	662	921	706	597	5.42	694	1011	595	977	925	1116
15/2	1200	1357	1087	1172	1127	1255	071	808	734	733	605	511	786	005	031	700	597	545	694	1011	565	833	935	1116
1504	1499	1224	1055	11/9	1210	1240	1055	905	799	743	973	1125	/86	977	1045	920	911	343	908	1225	700	1026	535	1220
1922	1900	1924	1204	1096	1510	1006	1055	1122	1061	132	0/2	1210	1000	1071	1045	1114	1004	051	1101	1419	002	1030	1149	1530
1635	1/2/	1620	1097	1395	1349	1090	096	1155	752	753	1111	1000	1193	752	12.56	705	696	531	792	1410	574	911	1024	1323
2345	2072	1512	1367	1287	1808	1003	1630	320	735	732	1463	1000	8/3	1430	320	, 95	1071	1310	1460	1705	1350	1505	1024	1203
2185	20/3	2169	1/5/	1948	1898	1997	1039	1522	1413	1328	1462	1086	1561	1458	1005	1481	13/1	1518	1469	1/65	1222	1596	1/10	1890
	2 March 7	4341	6167	(3/0	4410	< and 1	/1////	1078	1/02	1/00	1033	(1120	1752		12//	1034	1/40	1002	1040	413/	1/21	1700	(1)6/	4494

				Center (Morelos, P	ue, Qro, Edo.MX, C	DMX, Hid, TI	axc)							South (Chiapas, Guerrer	o, Oaxaca)		
CUAUTLA P	UEBLA 1	TEHUACÁN* C	QUERÉTARO SA	N JUAN IXHUATEPEC	CUERNAVACA	TOLUCA A	ZCAPOTZALCO	PACHUCA I	BARRANCA DEL MUERTO	AÑIL	IGUALA* A	CAPULCO	OAXACA	SALINA CRUZ*	SALINA CRUZ	TUXTLA GUTIÉRREZ	TAPACHULA	TAPACHULA II
832	859	981	561	721	786	667	742	755	742	742	861	1102	1198	1531	1531	1569	1875	187
1314	1341	1463	1043	1203	1268	1149	1224	1237	1224	1224	1343	1583	1680	2013	2013	2051	2357	235
832	859	981	561	721	786	667	742	755	742	742	861	1102	1198	1531	1531	1569	1875	187
711	663	751	496	698	794	691	695	552	706	709	877	1091	1040	1169	1169	1207	1513	151
749	757	877	430	633	729	626	629	650	641	644	807	1022	987	1117	1117	1155	1460	146
711	663	751	493	614	791	688	692	553	703	630	865	1038	1017	1146	1146	1184	1490	149
795	579	676	476	679	774	669	673	353	687	692	854	1068	932	1062	1062	1100	1405	140
734	619	716	504	706	801	696	701	508	714	720	903	1091	931	1151	1151	1199	1550	155
765	771	900	446	649	744	638	643	669	657	662	845	1033	1116	1174	1174	1223	1574	157
723	746	875	471	624	696	557	618	641	611	622	748	665	1047	1296	1296	1401	1752	175
686	709	838	401	587	659	520	581	606	574	585	711	948	1053	1302	1302	1408	1758	175
867	890	1019	618	768	840	701	762	788	755	766	892	1130	1234	1484	1484	1589	1939	193
502	525	654	298	404	476	336	398	423	390	402	528	481	870	1119	1119	1224	1575	157
823	846	975	539	724	796	657	719	744	711	723	848	1086	1191	1440	1440	1545	1896	189
537	543	673	317	421	493	354	416	441	408	420	546	544	889	1137	1137	1242	1593	159
808	831	960	524	709	781	642	704	729	696	708	833	674	1176	1425	1425	1530	1881	188
614	619	740	327	497	569	430	492	517	484	496	622	580	964	1213	1213	1318	1669	166
701	706	835	431	584	656	517	579	604	571	583	709	946	1051	1300	1300	1405	1756	175
697	702	832	388	581	653	513	575	600	567	579	705	665	1047	1296	1296	1401	1752	175
67.7	112	229	422	196	129	224	194	224	180	180	191	354	444	694	694	799	1149	114
281	171	51	511	317	342	357	315	313	309	288	405	559	220	469	469	710	904	90
18.4	134	251	325	121	35.9	151	120	181	107	107	157	303	467	716	716	821	1172	117
97.8	182	299	352	145	40.3	174	143	226	130	130	110	262	515	764	764	869	1220	122
330	220	173	561	367	391	406	364	362	358	345	454	616	412	476	476	525	876	87
1095	985	937	1325	1132	1156	1171	1129	1127	1123	1110	1219	1063	628	416	416	326	61.2	61.
348	238	190	578	385	409	424	382	380	376	363	471	634	430	480	480	529	879	87
420	310	263	651	457	481	496	454	452	533	435	544	706	215	320	320	460	650	65
943	833	785	1173	979	1004	1019	977	975	971	958	1066	1229	1025	677	677	448	1066	106
676	566	518	906	709	736	751	709	707	703	691	799	962	757	409	409	217	568	56
320	210	162	550	353	380	395	353	351	347	335	443	606	401	477	477	526	876	87
489	3/9	331	/19	525	550	565	523	520	516	504	612	775	5/1	292	292	341	692	69
250	140	98	486	317	316	331	289	287	283	2/1	3/9	542	337	500	500	548	899	89
527	482	2/9	557	435	542	420	452	3/1	450	453	043	631	/95	953	953	1002	1353	135
343	176	120	544	3/3	400	420	378	340	3/2	300	400	572	434	473	472	574	923	92
200	242	128	552	319	340	420	3/8	31/	313	360	409	572	504	472	4/2	521	872	8/
294	184	136	524	384	414	370	38/	334	381	300	417	520	376	537 (170	337	580	937	93
294	184	218	494	325	355	370	343	296	322	310	418	580	458	604	604	653	1004	100
314	204	156	544	350	374	389	347	345	341	329	437	599	395	483	483	532	882	88
597	547	645	598	500	607	566	514	436	521	518	766	897	860	1009	1009	1058	1409	140
299	189	147	530	336	360	375	333	331	327	315	423	585	381	486	486	535	885	140 RR
415	305	257	645	451	476	490	449	446	443	430	538	701	496	360	360	409	760	76
290	180	132	520	326	351	366	324	321	317	305	413	576	372	474	474	523	874	87
274	164	117	504	311	335	350	308	306	302	290	398	560	356	483	483	535	882	88
281	171	124	512	318	342	357	315	313	309	297	405	567	363	493	493	542	892	89
458	348	300	688	494	519	534	492	489	4585	473	581	744	540	401	401	450	800	80
697	587	539	927	733	758	773	731	728	724	712	820	983	779	430	430	205	556	55
389	279	231	619	450	450	465	423	421	417	404	513	675	246	351	351	454	805	80
1043	944	864	1267	1130	1086	1135	1068	1081	1068	1068	1182	1373	1128	803	803	569	875	87
1415	1315	1235	1639	1502	1458	1507	1439	1452	1439	1439	1554	1745	1500	1175	1175	941	1247	124

				Gulf (Ver, Ta	ib)			Southea	st (Yuc, Camp, C	J.Roo)
POZA RICA	PEROTE	XALAPA	ESCAMELA	VERACRUZ	TIERRA BLANCA	MINATITLÁN	VILLAHERMOSA	PROGRESO	CAMPECHE	MÉRIDA
935	1002	1051	998	1135	1112	1308	1480	2052	1862	2020
1417	1483	1533	1479	1617	1594	1790	1961	2534	2344	9580
935	1002	1051	998	1135	1112	1308	1480	2052	1862	2020
551	585	770	634	728	926	1092	1688	1690	1500	1658
347	514	555	896	597	691	889	1056	1638	1448	1606
394	551	592	770	634	728	927	1093	1667	1477	1635
309	537	578	655	558	721	919	1084	1583	1393	1551
349	577	557	695	598	760	959	1124	1716	1514	1677
449	607	642	795	689	790	989	1154	1739	1538	1701
833	835	875	896	1025	1006	1204	1369	1930	1740	1899
796	797	838	859	945	968	1167	1332	2052	1862	2020
958	1025	1074	1021	1159	1136	1332	1503	2075	1885	2044
604	671	720	667	804	781	977	1148	1721	1531	1689
911	978	1027	974	1112	1089	1285	1456	2028	1838	1997
600	666	716	662	800	777	973	1144	1717	1527	1685
902	950	997	964	1102	1079	1275	1446	2019	1829	1987
682	749	798	745	882	859	1055	1227	1799	1609	1767
783	850	900	846	984	941	1157	1328	1900	1710	1869
770	837	886	833	971	948	1144	1315	1887	1697	1856
589	220	260	250	367	360	558	723	1228	1038	1196
446	216	261	169	290	270	469	634	1118	928	1086
347	242	283	272	390	382	580	746	1298	1108	1266
400	290	331	320	438	430	628	794	1348	1158	1316
359	254	207	83.4	109	50.4	284	450	1057	867	1025
1087	982	935	848	937	765	543	526	1087	897	1055
363	257	210	101	112	32.7	288	453	1020	830	989
413	307	260	173	162	59.3	219	385	941	751	910
935	829	783	696	685	612	391	220	590	389	552
668	562	515	429	417	345	123	67	659	457	620
360	254	207	72.7	109	55.3	285	450	1042	840	1003
481	375	328	242	231	158	100	266	857	656	819
420	164	141	5.1	129	109	308	473	1064	863	1026
213	380	420	559	461	563	761	926	1518	1317	1479
225	119	72.1	166	33.7	135	334	499	1090	889	1052
352	194	199	38.6	101	82	280	445	1037	836	998
221	128	80.7	147	45.6	14/	345	511	1102	901	1064
357	202	204	46.8	106	75.4	278	444	1035	834	997
240	08.8	23.3	128	112	214	412	5//	1169	968	1131
366	222	213	66.5	115	61.5	291	456	1048	846	1009
278	436	4//	624	518	619	818	983	1574	13/3	1536
329	223	176	52.4	91.5	95.6	294	459	1051	849	1012
407	301	254	168	156	84.2	168	333	925	724	1001
354	198	201	42.9	103	84.2	282	448	1039	838	1001
302	183	210	24.2	92.4	102	456	302	1048	840	1009
3/3	255	220	34.3	122	103	301	405	1058	457 764	1019
699	592	536	450	429	180	144	52.2	500	704	527
201	276	220	430	435	300	244	33.3	043	760	000
1062	2/6	229	142	131	28.1	£14	3/9	3/0	/69	232
1063	1206	910	823	812	740	518	346	253	52	215
1312	1206	1123	10/3	1002	989	/0/	689	25/	307	21/

Figure A1. Distance matrix for hydrogen transportation.

| Tol | Cost/trip | 00010070 0 |

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 | Nort | hwest (BC, BCS, Sor | nora, Sinaloa, Nay | arit) | 7000100110 |
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 | North (Chi | huahua, Du | rango) | | | | | | | | | |
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| | El Molino | 243 | 248

 | 189
 | 177 177

 | DALENA HER
173
 | MOSILLO GU
163 | 158 | 147 | 137 | 248 248 | GUAMUCHIL C
 | ULIACAN MAZI
96 | 69
 | 0 | 420

 | 369
369 | 192 | ARRAL
319 | GOMEZ PALAC
 | 283 | | | | | | | | | | | |
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| Northwest | El Dorado
Puga | 143
243 | 149
248

 | 90
189
 | 77

 | 74
173
 | 64
163 | 58 | 48 | 38
137 | 149
248 | 18 0
17 108
 | 0 | 27
 | 96 | 378

 | 327 | 150
192 | 277 | | | | | | | | | |
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| | Aaron Saenz | 232 | 238

 | 179
 | 159

 | 159
 | 345 | 339 | 329 | 319 | 214 | 25 216
 | 204 | 177
 | 108 | 175

 | 123 | 23 | 73 | | | | | | | | | |
 | 28 | | |
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| | Alianza Popular
Fl Mante | 244 | 249

 | 190
 | 293
159

 | 290
 | 280 | 274 | 264 | 254
319 | 334 | 225 216
 | 213 | 186
 | 117 | 207

 | 156 | 32 | 105 | | | | | | | | | |
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28 | | |
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| Northeast | Plan de Ayala | 254 | 260

 | 201
 | 304

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 | 290 | 285 | 274 | 264 | 344 | 244 235
 | 223 | 196
 | 127 | 217

 | 166 | 42 | 116 | | | | | | | | | |
 | 59 | | |
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| | Plan de SL | 254 | 260

 | 201
 | 304

 | 300
 | 290 | 285 | 274 | 264 | 344 | 235
 | 223 | 196
 | 127 | 217

 | 166 | 42 | 116 | | | | | | | | | |
 | 59 | | |
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| | Ameca | 254 | 200

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 | 201

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 | 187 | 182 | 171 | 161 | 272 | 41 132
 | 120 | 93
 | 24 | 444

 | 393 | 216 | 343 | | | | | | | | | |
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| | Bellavista | 267 | 272

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| | Jose Ma Morelos
Lazaro Cardenas | 267
312 | 317

 | 213
 | 201
246

 | 197
242
 | 187 | 182 227 | 171 216 | 161
206 | 317 | .41 132
.86 177
 | 120 | 93
138
 | 24
69 | 444
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231 | 216 | 343
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| West | Melchor Ocampo | 267 | 272

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| | Pedernales
Quesería | 306
303 | 312
309

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250
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237

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234
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224 | 221
218 | 211 208 | 201
198 | 312
309 | 81 172
78 169
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157 | 133
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60 | 266
284

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233 | 91
109 | 165
183 | | | | | | | | | |
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| | Santa Clara | 299 | 304

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 | 219 | 213 | 203 | 193 | 304 | 73 164
 | 152 | 111
 | 56 | 224

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| | Atencingo | 431 | 437

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 | 365

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 | 351 | 346 | 336 | 325 | 437 | 105 297
 | 285 | 257
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 | 228 | 104 | 178 | | | | | | | | | |
 | 142 | | |
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| Center | Calipam | 458 | 463

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 | 392

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 | 378 | 373 | 362 | 352 | 463 | 32 323
 | 311 | 284
 | 215 | 306

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| | Emiliano Zapata | 396 | 408

 | 343
 | 331

 | 327
 | 317 | 313 | 301 | 293 | 400 | 173 260
171 262
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 | 213 | 89 | 163 | | | | | | | | | |
 | 127 | | |
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| | El refugio | 496 | 501

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 | 430

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 | 416 | 410 | 400 | 390 | 501 | 170 361
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| South | Huixtla
La margarita | 596
506 | 602
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426 | 511
420 | 501
410 | 491
400 | 602
511 | 171 462
180 371
 | 450
359 | 422
332
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263 | 444
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292 | 269
168 | 343
242 | | | | | | | | | |
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230 | | |
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| L | López Mateos | 512 | 518

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 | 446

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 | 432 | 427 | 417 | 406 | 518 | 186 378
 | 366 | 338
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Benito Juárez | 566 | 572

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507
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454 | 572
566 | 141 432
134 425
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| | El Modelo | 493 | 498

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CUAUTLA	PUEBLA TE	HUACÁN* (QUERÉTARO S	AN JUAN IXHUATEPEC	CUERNAVACA T	OLUCA A	AZCAPOTZALCO	PACHUCA	BARRANCA DEL MUERTO	ŴIL	IGUALA* A	CAPULCO	DAXACA S	ALINA CRUZ* SA	LINA CRUZ TU	JXTLA GUTIÉRREZ	TAPACHULA	TAPACHULA II
173	188	72	100	152	149	127	160	146	160	160	178	220	251	314	314	335	353	353
269	285	311	196	248	245	233	256	243	256	256	275	316	348	410	410	432	450	450
173	188	72	100	152	149	127	160	146	160	160	178	220	251	314	314	335	353	353
89	94	120	19	75	92	42	102	79	102	102	93	156	178	118	118	140	158	158
105	88	114	28	84	101	51	92	79	92	92	102	165	172	112	112	134	152	152
89	94	120	19	75	92	42	102	79	102	102	93	186	178	118	118	140	158	158
116	80	107	38	102	111	61	102	0	102	59	113	176	164	104	104	126	144	144
116	80	107	38	102	111	61	102	0	102	59	113	176	164	104	104	126	144	144
116	80	107	38	102	111	61	102	0	102	59	113	176	164	104	104	126	144	144
149	164	191	76	128	125	103	136	122	136	136	154	196	227	290	290	311	329	329
149	164	191	76	128	125	103	136	122	136	136	154	196	227	290	290	311	329	329
149	164	191	76	128	125	103	136	122	136	136	154	196	227	290	290	311	329	329
108	123	150	90	87	84	62	95	82	95	95	114	45	186	249	249	271	289	289
149	164	191	76	128	125	103	136	122	136	136	154	196	227	290	290	311	329	329
93	108	135	75	71	68	46	79	66	79	79	98	61	171	233	233	255	273	273
185	201	227	112	1/8	161	139	1/2	159	1/2	1/2	191	12	264	326	326	348	366	366
11/	132	159	44	96	93	/1	104	91	104	104	123	33	195	258	258	280	298	298
149	164	191	/6	128	125	103	136	122	136	136	154	196	227	290	290	311	329	329
120	141	108	53	105	102	80	113	100	113	113	132	50	204	267	207	288	307	307
0	8	34	55	58	0	23	47	35	47	4/	23	64	71	133	133	155	1/3	1/3
08	27	0 69	115	85	68	30	74	92	74	74	91	132	30	165	166	100	109	109
0	41	60	76	20	5	10	20	37	20	20	16	67	104	166	100	100	200	200
105	41	00	153	122	105	134	111	100	111	111	120	170	104	100 E7	57	188	200	200
206	165	100	133	123	206	224	212	200	212	212	320	1/0	12	10	10	19	57	37
105	105	105	153	123	105	124	111	100	212	111	179	170	13	57	57	18	97	97
122	81	25	169	125	100	140	178	115	178	178	91	122		19	10	53	81	81
176	135	79	205	193	176	195	187	171	182	182	200	741	164	49	49	20	38	38
170	129	64	217	187	170	188	176	164	176	176	193	234	158	42	47	14	32	32
106	65	9	153	123	106	124	111	100	111	111	129	170	93	57	57	79	97	97
136	95	39	183	152	136	154	141	130	141	141	159	200	123	19	19	41	59	59
102	61	5	149	119	102	120	108	96	108	108	125	166	89	61	61	82	101	101
116	80	107	38	102	111	61	102	0	102	59	113	176	164	104	104	126	144	144
78	36	29	61	31	78	59	83	8	83	83	81	123	65	77	77	99	117	117
106	65	9	153	123	106	124	111	100	111	111	129	170	93	61	61	82	101	101
78	36	29	61	31	78	59	83	8	83	83	81	123	65	77	77	99	117	117
106	65	9	153	123	106	124	111	100	111	111	129	170	93	57	57	79	97	97
83	42	46	130	93	83	94	88	77	88	88	99	140	83	76	76	97	115	115
106	65	9	153	123	106	124	111	100	111	111	129	170	93	57	57	79	97	97
121	57	49	0	88	108	116	88	65	88	88	131	173	86	104	104	126	144	144
136	95	39	183	152	136	154	141	130	141	141	159	200	123	19	19	41	59	59
132	91	35	179	149	132	150	138	126	138	138	155	196	119	35	35	56	74	74
106	65	9	153	123	106	124	111	100	111	111	129	170	93	57	57	79	97	97
106	65	9	153	123	106	124	111	100	111	111	129	170	93	61	61	82	101	101
106	65	9	153	123	106	124	111	100	111	111	129	170	93	61	61	82	101	101
136	95	39	183	152	136	154	141	130	141	141	159	200	123	19	19	41	59	59
170	129	64	217	187	170	188	176	164	176	176	193	234	158	42	42	14	32	32
116	75	19	163	132	116	134	121	110	121	121	139	180	6	35	35	56	74	74
203	162	106	250	220	203	221	209	197	209	209	226	267	190	75	75	47	65	65
213	172	116	260	230	213	231	218	207	218	209	236	277	200	85	85	57	75	75

	Gulf (Ver, 1				sb)			Southea	st (Yuc, Camp, G	Q.Roo)
POZARICA	PEROTE	XALAPA	ESCAMELA	VERACRUZ	TIERRA BLANCA	MINATITLÁN	VILLAHERMOSA	PROGRESO	CAMPECHE	MÉRIDA
161	205	223	244	273	263	302	317	360	360	360
257	302	319	341	369	359	399	414	456	456	456
161	205	223	244	273	263	302	317	360	360	360
28	34	34	86	58	67	107	122	164	164	164
17	24	26	43	28	33	42	50	158	158	158
28	34	34	86	58	67	107	122	164	164	164
14	21	21	72	44	53	93	108	150	150	150
14	21	21	72	44	53	93	108	150	150	150
14	21	21	72	44	53	93	108	150	150	150
137	181	199	220	249	239	278	293	336	336	336
161	205	223	244	273	263	302	317	360	360	360
137	181	199	220	249	239	278	293	336	336	336
96	141	158	179	208	198	237	252	295	295	295
137	181	199	220	249	239	278	293	336	336	336
81	125	143	164	193	182	222	237	279	279	279
174	229	242	257	286	275	315	330	372	372	372
105	150	167	188	217	207	246	261	304	304	304
137	181	199	220	249	239	278	293	336	336	336
114	159	176	197	226	216	255	270	313	313	313
44	36	49	64	93	82	122	137	179	179	179
29	29	46	0	29	19	58	73	116	116	116
64	70	83	97	126	116	155	170	213	213	213
56	70	83	97	126	116	155	170	213	213	213
44	28	31	9	17	0	17	61	104	104	104
128	150	115	109	101	74	51	101	75	75	75
44	28	31	9	17	0	17	61	97	97	97
44	66	31	25	17	6	30	45	87	87	87
98	121	86	79	71	45	21	6	10	16	10
92	114	79	73	65	38	15	0	43	43	43
44	28	31	9	17	0	17	61	104	104	104
35	57	22	39	8	4	8	23	66	66	66
47	24	35	5	20	10	49	64	107	107	107
14	21	21	72	44	53	93	108	150	150	150
0	0	0	45	18	26	66	81	123	123	123
47	28	35	9	20	10	49	64	107	107	107
0	20	21	45	18	26	17	81	123	123	123
44	28	31	9	1/	25	1/	61	104	104	104
44	13	24	43	10	25	17	19	122	122	122
44	28	31	9	1/	53	1/	100	104	104	104
14	21	21	20	44	53	93	108	150	150	150
54	57	22	39	8	4	22	23	91	91	91
34	29	21	33	17	0	17	50	104	104	104
44	20	25	9	20	10	17	64	104	104	104
47	20	25	9	20	10	49	64	107	107	107
47	57	22	30	20	10	49	22	107	107	-07
92	114	79	59	0 23	4 3.8	15	23	43	43	43
38	60	25	19	10		23	28	81	81	4J 81
125	147	112	106	97	71	48	33	10	10	10
135	157	122	116	55	81	58	43	10	10	10
155	137	122	110	33	10	30	43	0	0	0

Figure A2. Toll cost matrix for hydrogen transportation.

References

- 1. Morales, A.; Pérez, M.; Pérez, J.; De León, S. Energías renovables y el hidrógeno: Un par prometedor en la transición energética de México. *Investig. Cienc.* 2017, 25, 92–101. [CrossRef]
- 2. Ehsan, S.; Abdul, M. Hydrogen production from renewable and sustainable energy resources: Promising green energy carrier for clean development. *Renew. Sustain. Energy Rev.* **2016**, *57*, 850–866. [CrossRef]
- 3. Orecchini, F.; Bocci, E. Biomass to hydrogen for the realization of closed cycles of energy resources. *Energy* **2007**, *32*, 1006–1011. [CrossRef]
- 4. De León Almaráz, S. Multi-Objective Optimization of a Hydrogen Supply Chain. Ph.D. Thesis, Toulouse Institute of Technology, Toulouse, France, 2014.
- Parker, N. Optimizing the Design of Biomass Hydrogen Supply Chains Using Real-Word Spatial Distributions: A Case of Study Using California Rice Straw. Master's Thesis, University of California, Berkeley, CA, USA, 2007.
- 6. Rico, J. Desarrollo de una Red de Valor Con Base a la Gestión de Bioenergía, Para Determinar Estrategias de Negocios. Ph.D. Thesis, Instituto Tecnológico de Orizaba, Orizaba, Mexico, 2015.
- 7. Azzaro-Pantel, C. Hydrogen Supply Chain Design, Deployment and Operation; Elsevier: Amsterdam, The Netherlands, 2018; ISBN 9780128111987.
- 8. Kim, J.; Moon, I. Strategic design of hydrogen infrastructure considering cost and safety using multiobjective optimization. *Int. J. Hydrogen Energy* **2008**, *33*, 5887–5896. [CrossRef]
- 9. Almansoori, A.; Shah, N. Design and operation of a stochastic hydrogen supply chain network under demand uncertainty. *Int. J. Hydrogen Energy* **2012**, *37*, 3965–3977. [CrossRef]
- 10. Güler, M.G.; Geçici, E.; Erdoğan, A. Design of a future hydrogen supply chain: A multi period model for Turkey. *Int. J. Hydrogen Energy* **2021**, *46*, 16279–16298. [CrossRef]
- 11. Gabrielli, P.; Charbonnier, F.; Guidolin, A.; Mazzotti, M. Enabling low-carbon hydrogen supply chains through use of biomass and carbon capture and storage: A Swiss case study. *Appl. Energy* **2020**, 275, 115245. [CrossRef]
- 12. Quarton, C.J.; Samsatli, S. The value of hydrogen and carbon capture, storage and utilization in decarbonizing energy: Insights from integrated value chain optimization. *Appl. Energy* **2020**, 257, 113936. [CrossRef]
- 13. Li, L.; Manier, H.; Manier, M.-A. Hydrogen supply chain network design: An optimization-oriented review. *Renew. Sustain. Energy Rev.* **2019**, 203, 342–360. [CrossRef]
- 14. Ochoa, J.; Azzaro, C.; Martinez, G.; Aguilar, A. Social cost-benefit assessment as a post-optimal analysis for hydrogen supply chain design and deployment: Application to Occitania (France). *Sustain. Prod. Consum.* **2020**, *24*, 105–120. [CrossRef]
- Zakaria, I.H.; Ibrahim, J.A.; Othman, A.A. Waste biomass toward hydrogen fuel supply chain management for electricity: Malaysia perspective. In Proceedings of the AIP Conference Proceedings, Kedah, Malaysia, 11–13 April 2016; Volume 1761, p. 020111. [CrossRef]
- Lam, H.L.; Ng, W.P.; Ng, R.T.; Ng, E.H.; Aziz, M.K.A.; Ng, D.K.S. Green strategy for sustainable waste-to-energy supply chain. Energy 2013, 57, 4–16. [CrossRef]
- 17. Gumte, K.; Pantula, P.; Miriyala, S.; Mitra, K. Achieving wealth from bio-waste in a nationwide supply chain setup under uncertain environment through data driven robust optimization approach. *J. Clean. Prod.* 2021, 291, 125702. [CrossRef]
- 18. Goodzarzian, F.; Wamba, S.; Mathiyazhagan, K.; Taghipour, A. A new bi-objective green medicine supply chain network design under fuzzy environment: Hybrid metaheuristic algorithms. *Comput. Ind. Eng.* **2021**, *160*, 107535. [CrossRef]
- 19. Abdolazimi, O.; Esfandarani, M.S.; Shishebori, D. Design of a supply chain network for determining the optimal number of items at the inventory groups based on ABC analysis: A comparison of exact and meta-heuristic methods. *Neural Comput. Appl.* **2021**, *33*, 6641–6656. [CrossRef]
- Paul, A.; Shukla, N.; Paul, S.K.; Trianni, A. Sustainable supply chain management and multi-criteria decision-making methods: A systematic review. Sustainability 2021, 13, 7104. [CrossRef]
- Tordecilla, R.; Juan, A.; Montoya, J.; Quintero, C.; Panadero, J. Simulation-optimization methods for designing and assessing resilient supply chain networks under uncertainty scenarios: A review. *Simul. Model. Pract. Theory* 2021, 106, 102166. [CrossRef]
- 22. Hosseini, S.; Ghatreh, M.; Abbasi, F. A novel hybrid approach for synchronized development of sustainability and resiliency in the wheat network. *Comput. Electron. Agric.* **2020**, *168*, 105095. [CrossRef]
- Gital, Y.; Bilgen, B. Multi-objective optimization of sustainable biomass supply chain network design. *Appl. Energy* 2020, 272, 115259. [CrossRef]
- 24. Rasi, R.; Sohanian, M. A multi-objective optimization model for sustainable supply chain network with using genetic algorithm. *J. Model. Manag.* **2021**, *16*, 714–727. [CrossRef]
- 25. Zailan, R.; Lim, J.; Manan, Z.; Wan, S.; Mohammadi, B.; Jamaluddin, K. Malaysia scenario of biomass supply chain-cogeneration system and optimization modeling development: A review. *Renew. Sustain. Energy Rev.* **2021**, *148*, 111289. [CrossRef]
- 26. Nunes, L.; Causer, T.; Ciolkosz, D. Biomass for energy: A review on supply chain management models. *Renew. Sustain. Energy Rev.* 2020, 120, 109658. [CrossRef]
- 27. Seo, S.-K.; Yun, D.-Y.; Lee, C.-J. Design and optimization of a hydrogen supply chain using a centralized storage model. *Appl. Energy* **2020**, *262*, 114452. [CrossRef]
- Yuen, S.; Shen, B.; Dong, W.; Yong, S.; Akbar, M.; Sunarso, J. Techno-economic analysis for biomass supply chain: A state-of-the-art review. *Renew. Sustain. Energy Rev.* 2021, 135, 110164. [CrossRef]

- Rafique, R.; Jat, M.; Rehman, H.; Zahid, M. Bioenergy supply chain optimization for addressing energy deficiency: A dynamic model for large-scale network designs. J. Clean. Prod. 2021, 318, 128495. [CrossRef]
- Li, L.; Manier, H.; Manier, M.-A. Integrated optimization model for hydrogen supply chain network design and hydrogen fueling station planning. *Comput. Chem. Eng.* 2020, 134, 106683. [CrossRef]
- Ochoa, J.; Azzaro, C.; Aguilar, A. Optimization of a hydrogen supply chain network design under demand uncertainty by multi-objective genetic algorithms. *Comput. Chem. Eng.* 2020, 140, 106853. [CrossRef]
- Debernardi, H.; Ortiz, H.; Rosas, D. Energía Disponible en el Campo Cañero Mexicano. Códoba, Veracruz. 2014. Available online: https://www.atamexico.com.mx/wp-content/uploads/2017/11/3-DIVERSIFICACI%C3%93N-2015.pdf (accessed on 3 April 2020).
- SAGARPA. Planeación Agrícola Nacional 2017–2030. 2016. Available online: https://www.gob.mx/agricultura/acciones-y-programas/planeacion-agricola-nacional-2017-2030-126813 (accessed on 22 March 2020).
- CONADESUCA. 6to. Informe Estadístico del Sector Agroindustrial de la Caña de Azúcar en México, Zafras 2009–2010/2018–2019, Comité Nacional para el Desarrollo Sustentable de la Caña de Azúcar. 2019. Available online: https://siiba.conadesuca.gob.mx/ Archivos_Externos/6to_informe_estad%C3%ADstico.pdf (accessed on 17 February 2020).
- Comisión Nacional de Hidrocarburos. Reservas de Hidrocarburos en México Conceptos Fundamentales y Análisis. 2018. Available online: https://www.gob.mx/cnh/documentos/analisis-de-informacion-de-las-reservas-de-hidrocarburos-de-mexicoal-1-de-enero-del-2018?idiom=es (accessed on 25 February 2020).
- IRENA. Hydrogen from Renewable Power: Technology Outlook for the Energy Transition; International Renewable Energy Agency: Abu Dhabi, United Arab Emirates, 2018. Available online: www.irena.org (accessed on 30 March 2020).
- Ferrero, D.; Gamba, M.; Lanzini, A.; Santarelli, M. Power-to-gas hydrogen: Techno-economic assessment of processes towards a multi-purpose energy carrier. *Energy Procedia* 2016, 101, 50–57. [CrossRef]
- Mendoza, A.; Cadena, A.; de Buen, O. Estudio de Pesos y Trasnportes, Secretaría de Comunicaciones y Transporte. 2010. Available online: http://www.dof.gob.mx/nota_detalle.php?codigo=5508944&fecha=26/12/2017 (accessed on 18 April 2020).