Costa Rica Update

Mr. Rolando Castro

Vice-Minister of Energy, Republic of Costa Rica

33rd IPHE Steering Committee Meeting

16 – 19 June 2020

Virtual Meeting

International Partnership for Hydrogen and Fuel Cells in the Economy

Announcements and/or New Initiatives
Costa Rica

- **Investments/Funding/Policies/Initiatives**
  - Costa Rican Institute of Technical Standards (INTECO) started committee to discuss and adopt hydrogen-related standards from ISO and other international entities.
  - Ministries of Environment & Energy, Treasury and others working with the private sector to include hydrogen equipment within the tax exemption regime of Law 7447.
- **New Research & Development, Demonstration and/or Deployment Activities**
  - Costa Rica Hydrogen Ecosystem pilot project, led by Ad Astra Rocket Company, adding an H70 dispenser module (first one in Latin America). Commissioning in II semester, 2020.
- **Key Collaborations**
  - Costa Rican Hydrogen Alliance, partially funded by IDB, producing studies related to Life Cycle Analysis, Total Cost of Ownership, Gap Analysis and a H2 Road Map proposal.

Examples of Lessons Learned and Impact
Costa Rica

Program initiative, policy, regulation or mandate	Lessons Learned/Outcomes
• Adoption of technical standards related to hydrogen technologies	• Spanish translations do not exist for most ISO standards, local committee working on producing documents which may serve other countries in LATAM & Spain.
• Introduction of hydrogen equipment within the tax exemption provided by Law 7447 (Energy Efficiency and Renewable Energy)	• Thorough process, involves several government branches. • Pace of pilot demonstrations sometimes faster than updates on regulations; creative solutions needed to maintain technical progress.

Costa Rica – Profile June 2020

Status of Deployments

- CR Hydrogen Ecosystem: pilot green hydrogen plant and HRS.
- 1 fuel-cell electric bus used for testing technology in public transit-like scenarios.
- 4 FCEVs (Toyota Mirai) deployed to serve the tourism industry.

Leading Government Initiatives

- National Decarbonization Plan (2019)
- Inter-institutional Action Plan to Promote the Use of Hydrogen in Transportation (2018)
- Adoption of technical standards related to hydrogen technologies (2020)
- Introduction of tax incentives for the import of hydrogen equipment (2020)

Goals or Focus Areas

- Green hydrogen production, complementing country's 100% green electricity matrix.
- H2 in electric transportation, particularly long-distance buses and heavy-duty vehicles.

Deployment Goals

- Deployment of first H70 HRS in II semester 2020, serving small fleet of FCEVs serving the tourism industry.

Funding

- Currently executing 3-year, $1.5M project funded by IDB and other entities to develop H2 infrastructure and enable local H2 economy.

Thank you

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Highlight to Include in IPHE Newsletter
Costa Rica

- The Costa Rica Hydrogen Ecosystem pilot project, led by Ad Astra Rocket Company, is adding an H70 dispenser module and related hardware (the first one in Latin America). Commissioning will take place during the II semester, 2020.
- The country is working to adopt its own technical standards related to hydrogen technologies, based in ISO and other international entities. Government also working to issue tax incentives for importing green hydrogen equipment and related infrastructure.
- The Costa Rican Hydrogen Alliance is working with public and private entities to produce localized studies related to LCA and TCO of hydrogen transportation, as well as a Hydrogen Road Map proposal for the country.

An H70 dispenser module will be added to the Costa Rican Hydrogen Ecosystem pilot project, the first one in Latin America.

Status of Applications and Goals
Costa Rica

Application	Status (As of *June, 2020*)	Goal (For *2021*)
1) H_2 Applications		
a. Energy Storage (e.g. MW, GW of capacity)	0	0
b. Electrolyzers	~100 kW	1.25 MW
c. Other (e.g., Steel, Marine, Fertilizer, etc.)	N/A	N/A
2) Transportation		
a. Light Duty Vehicles	4	10
b. Medium and Heavy Duty Vehicles	0	10
c. Buses	1	1
d. Trains	0	0
e. Forklifts	0	0
3) Stationary		
a. Residential	0	0
b. Commercial	0	0
c. Back Up Power	0	0
4) Other (applicable to your country and not covered in the categories listed above)		