



International Partnership
for Hydrogen and Fuel Cells
in the Economy

***Costa Rica* Update**

32nd IPHE Steering Committee Meeting

23 – 24 October 2019

Seoul, Republic of Korea

Announcements and/or New Initiatives *Costa Rica*

- **Investments/Funding/Policies/Initiatives**

- National Decarbonization Plan launched (Feb 2019), based on the country's already >99% clean electricity production matrix. Hydrogen is contemplated within the plan.
- Hydrogen Transportation Ecosystem operational since 2017.
- Funding support in 2019 from IDB-Lab (\$820k) and Toyota Mobility Foundation (\$750k) to promote a hydrogen economy in CR, develop policies and update existing infrastructure.

- **New Research & Development, Demonstration and/or Deployment Activities**

- New fleet of 4 FCEVs (Toyota) added to existing FCEB in Ecosystem (Jan 2019).

- **Key Collaborations**

- Costa Rica Hydrogen Alliance formed May 2019 (10 priv. companies, 2 NGO's, 1 public company).

- **Other**

Examples of Lessons Learned and Impact *Costa Rica*

Program initiative, policy, regulation or mandate	Lessons Learned/Outcomes
<ul style="list-style-type: none"> - Hydrogen Transportation Ecosystem project 	<ul style="list-style-type: none"> - Business models need to be adapted to the context of Global South. Niche markets can be found in specific sectors (tourism, corporate transportation, etc.) - Successful initiatives catalyze interest and potential adoption.
<ul style="list-style-type: none"> - Policies: National Decarbonization Plan, Law of Incentives for Electric Transportation 	<ul style="list-style-type: none"> - BEVs and FCEVs should be presented as complementary flavors of the single concept of “electric mobility”. - Hydrogen’s role in decarbonizing sectors beyond transportation should be emphasized in early stages of adoption.



Costa Rica - Profile October 2019

Status of Deployments

- Hydrogen Transportation Ecosystem active since Nov 2017 (1 demonstration facility, H35, electrolysis).
- 4 FCEVs active as carbon-zero resort transportation since Jan 2019.
- 1 FCEB under field tests since 2017.

Leading Government Initiatives

- Law of Incentives for Electric Transportation, Feb 2018.
- National Decarbonization Plan launched Feb 2019.
- National Hydrogen Policy launched Feb 2019.
- Participation in Hydrogen Energy Ministerial meeting (JP, Sep 2019).

Goals or Focus Areas

- Consolidation and expansion of existing Ecosystem demonstration.
- Consolidation of Costa Rican Hydrogen Alliance.
- Development of localized policies and a national Hydrogen Roadmap.

Deployment Goals

- Fleet of FCEVs in existing Ecosystem to be expanded to 12 in 2020.
- 10-FCEB project in San José metro area planned for 2020.

Funding

- Developing framework for public-private funding partnerships and privately-funded projects.



Thank you



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Highlight to Include in IPHE Newsletter - *Costa Rica*



- The Costa Rica Hydrogen Transportation Ecosystem has been operational since November 2017, showcasing the technology and deploying 1 FCEB. **[Picture 1: Costa Rica Hydrogen Transportation Ecosystem]**
- The first (and so far, only) four FCEVs in Latin America were deployed in January 2019 as part of the Ecosystem in alliance with Toyota Motor Corp. and Purdy Motor. They are being used as carbon-zero resort transportation in the Guanacaste region **[Picture 2: Toyota Mirai FCEV being refuelled at the Costa Rica Hydrogen Ecosystem]**
- The Costa Rica Hydrogen Alliance was formed in May 2019 as part of the project supported by the IDB-Lab and the CRUSA Foundation. 10 private companies, 2 NGO's, and 1 public company take part in this initiative to jointly develop a national hydrogen economy and promote business initiatives within its members. **[Picture 3: Inauguration of the Costa Rica Hydrogen Alliance, May 2019]**



Status of Applications and Goals - *Costa Rica*

Application	Status (As of Oct, 2019)	Goal (For 2020)
1) H₂ Applications		
a. Energy Storage (e.g. MW, GW of capacity)	0	N/A
b. Electrolyzers	0	N/A
c. Other (e.g., Steel, Marine, Fertilizer, etc.)	0	N/A
2) Transportation		
a. Light Duty Vehicles	4	12
b. Medium and Heavy Duty Vehicles	0	10
c. Buses	1	11
d. Trains	0	N/A
e. Forklifts	0	N/A
3) Stationary		
a. Residential	0	N/A
b. Commercial	0	N/A
c. Back Up Power	0	N/A
<i>4) Other (applicable to your country and not covered in the categories listed above)</i>	N/A	N/A