

# Smart Inverter Deployment

**Mike Taylor**  
**Principal of Knowledge**



**Smart Electric  
Power Alliance**

# About SEPA



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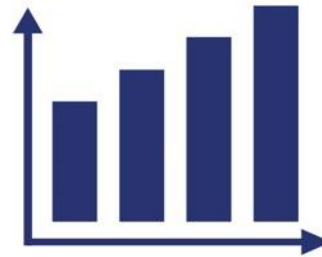
SEPA's mission is to facilitate the utility industry's smart transition to a clean energy future through education, research, and collaboration.

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## COMMUNITY

Members, Events, USC, Fact Finding Missions, Partnership Opportunities, Power Player Awards



## DATA

USD, Solar Calculators, Mapping Tools, Research Reports, Project and RFP News, Custom Research Solutions



## INSIGHTS

Advisory Services, Webinars, Workshops, Case Studies, SEPA Publications, Blog, Expert Commentary

# Inverter Evolution

1. Current: Monitor and Disconnect
2. Smart 1.0: Monitor and React
3. Smart 2.0: Monitor,  
Communicate and Carry Out

# Advanced Inverter Functionality

1. Ride-Through Grid Disturbances
2. Provide Voltage Support
3. Allow Grid Operator Interactivity

# Active Deployment Models

1. Grid Crisis



**Hawaiian  
Electric  
Company**

2. R&D



**aps**

3. Policy



*Pacific Gas and  
Electric Company*<sup>®</sup>

# Potential Deployment Models

4. Market Pull



5. Utility Ownership



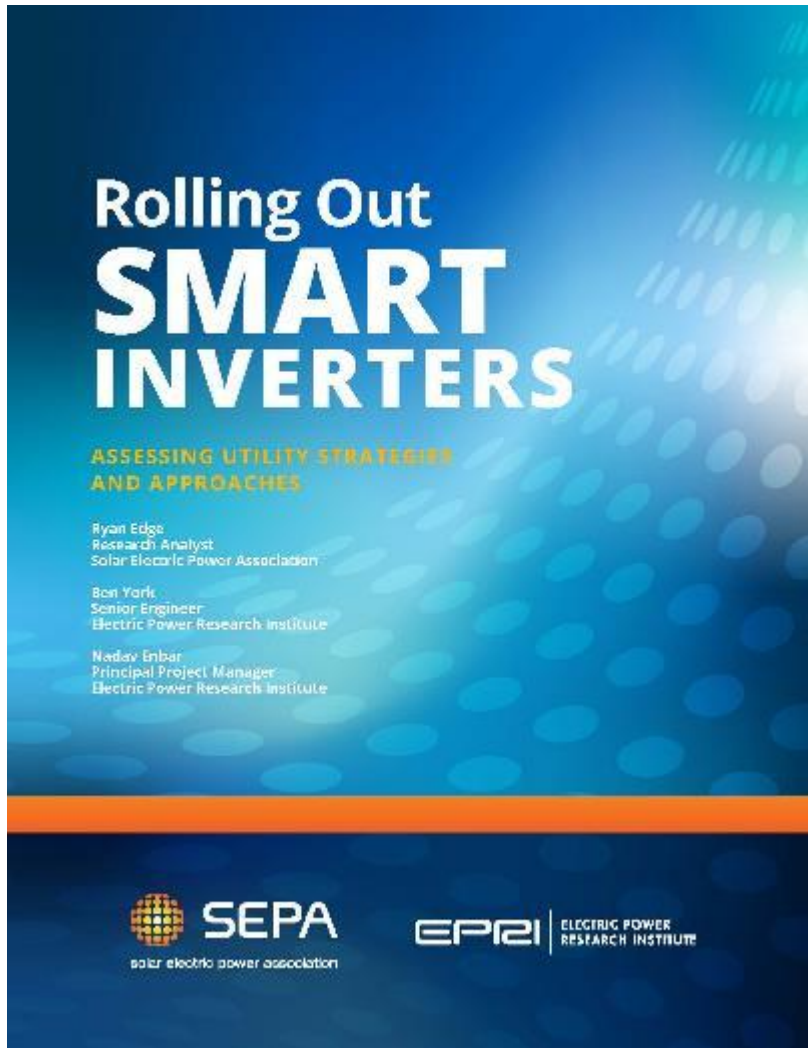
6. Shared Service



# Takeaway

1. Equipment Standards Are Not Keeping Pace w/ Technology Advancement
2. Autonomous Grid Support Can Be Deployed At Low Cost
3. Communication Functions Are a Tradeoff Between Capabilities and Cost
4. Inverter Retrofits Can Be Managed Effectively

# SEPA Report



1. Free
2. Approachable
3. [sepapower.org](http://sepapower.org)



# Thank you

Mike Taylor

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[mtaylor@sepapower.org](mailto:mtaylor@sepapower.org)

202-559-2028

