

# 2007 Fuel Cell Seminar & Exposition

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## *Navigating The Permitting Process A New York State Perspective*

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October 15, 2007

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# *Today's Presentation ...*

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- Acknowledgements
- Overview of Issues
- Report Findings
- NYSERDA's Effort
- Recommendations
- Horizon Issues
- Conclusion

# *Acknowledgements*

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## **“Applying Local Building and Fire Safety Codes to Hydrogen Technology Applications In New York State”**

**November 2006 Report Funded by NYSERDA  
(William Reinhardt – Project Manager)**

**Developed by Pace Law School Energy Project  
(Sam Swanson – Project Manager) and  
Hydrogen Safety, LLC**

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# Overview of Issues

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- Local building and fire safety codes are critical for deployment of hydrogen based technologies
- Goal of local code regulations is to protect public safety while allowing construction of new hydrogen facilities without unnecessary delays and financial burdens
- “Balance” Challenge to Authorities Having Jurisdiction - Be effective without being excessively conservative to impose a major barrier to siting of hydrogen facilities
- There is no “Silver Bullet” for energy alternatives

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# Overview of Issues

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## Common “Local” Characteristics:

- Lack of experience with hydrogen projects
- Confusion and misimpressions about the state of appropriate Codes & Standards - a case of quantity and quality
- Political pressure since many projects are state funded
- Public Perceptions
  - NIMBY
  - Other “Green” technologies don’t present risks
  - Exploding blimps & bombs

# *Report Findings*

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- Under New York State Law, all municipalities with the exception of New York City are required to adopt state building and fire codes; New York City is authorized to develop its own set of codes
- New York State and the City of New York are working to replace their building and fire codes with new codes based on the model codes of International Code Council (ICC)

# *Report Findings*

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- The New York City fire safety code does not yet offer a code framework for the safe installation of hydrogen fueling stations within the City
- Because the enforcement of building and fire safety codes involves thousands of local government officials, training is and will remain a major challenge

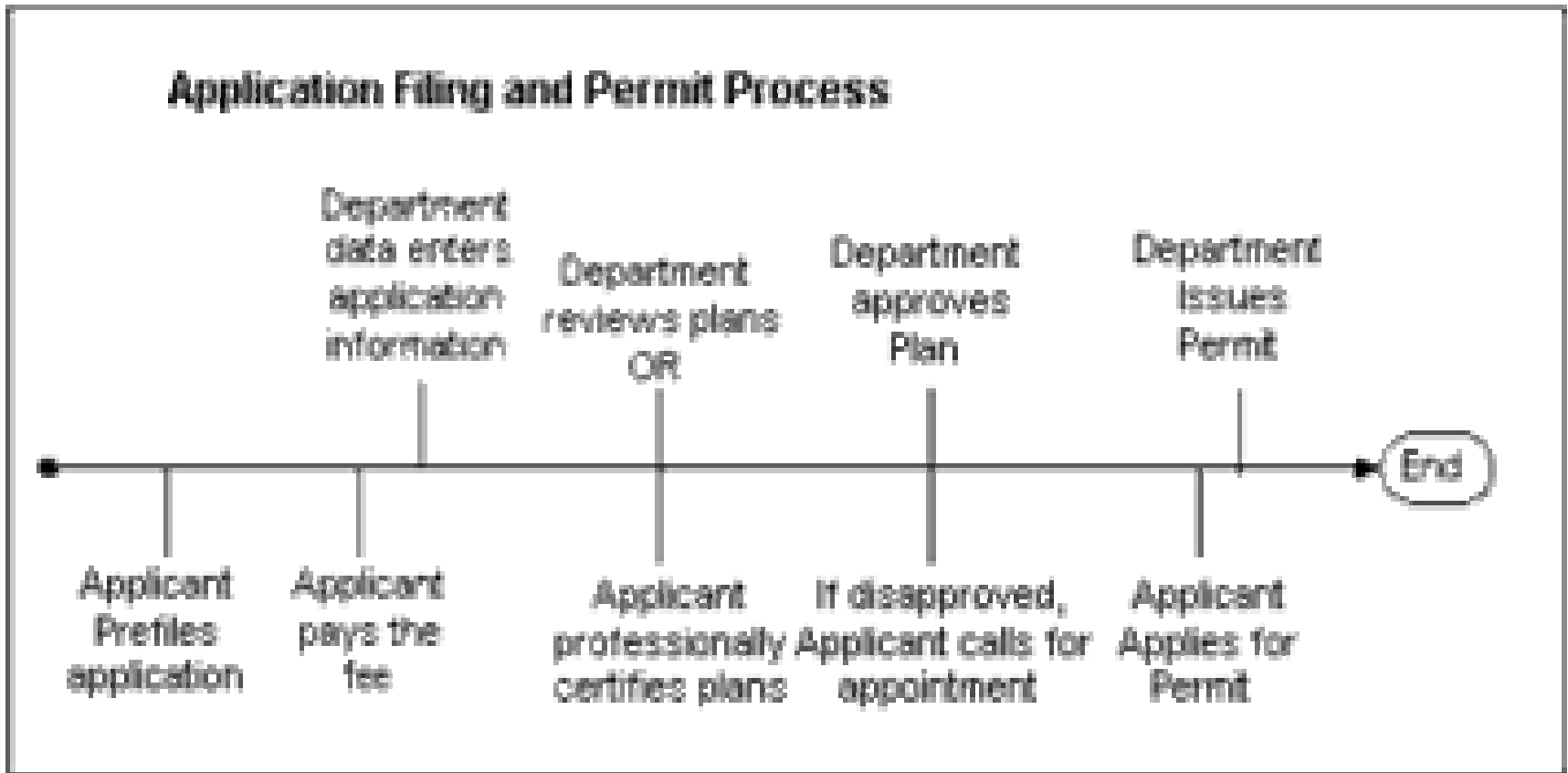
# *New York State Permit Process*

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1. Analyze the applicability of Codes to the specific project
2. Determine the code enforcement jurisdiction for the project
3. Prepare code compliance documents
4. Contact local code and political officials to gain support
5. Iterative process of presentation of plans and confirming their implementation until the facility is authorized to operate
6. Begin construction after receiving signed building permits
7. Verification of compliance with the specific provisions of the building permit, often an iterative process of demonstrating that approved plans have been implemented

# New York City Permit Process



From NYC DOB website

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# *Fuel Cell Projects in NYC*

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- To expedite Material, Equipment & Acceptance (MEA) number from NYC, prudent to demonstrate compliance with:
  - **CSA FC1** - National Standard Stationary Fuel Cell (FC)
  - **NFPA 853** - Standard for the Installation of Stationary FC
  - **ASME PTC 50** - Performance Test Code for FC
  - **IEEE 1547** - Distributed Resources Interconnected with Electric Power Systems
  - **UL 1741** - Standard for Evaluation of Inverters, Converters for Use in Independent Power Systems

# *NYSERDA's Effort*

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In recognition of the need to expedite the Permitting Process in general, NYSERDA is funding, since November '06, the development of Hydrogen Safety's "Hydrogen Your Way Reference Service <sup>TM</sup>" that provides a menu of subject information modules for local permit officials and others to improve their awareness and knowledge of hydrogen issues

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# *Recommendations*

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## For Individual Projects:

- Understand local C&S enforcement jurisdictions (City, County, NYS Dept of State, State Authority, Feds)
- Meet with local officials early in the project development process
- Role of Engineering & Design to show:
  - ✓ Identification, Analysis and Mitigation of Risks
  - ✓ Minimization of Perceived Risks + Management of Residual Risks

# *Horizon Issues*

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- Will Homeland Security concerns result in rules regarding the transportation of hydrogen over bridges and through tunnels?
- How will Local, State & Federal agencies adapt emergency preparedness plans to address hydrogen related accidents?
- Will local jurisdictions accept Internationalization of C&S? Understanding & timing issue

# *Conclusion*

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As Hydrogen projects become more numerous, it will be critical for the public and private stakeholders to develop supportive and collaborative working relationships with code and fire officials to expedite the permitting process and thereby save the project time, money and aggravation.



# Thank You!

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A New York State Perspective*

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