



COMMONWEALTH OF MASSACHUSETTS

*Charles Baker, Governor
Matthew Beaton, Secretary
Judith Judson, Commissioner*

Online Permitting Webinar for Municipalities

*Green Communities Division
Webinar*

December 16, 2015

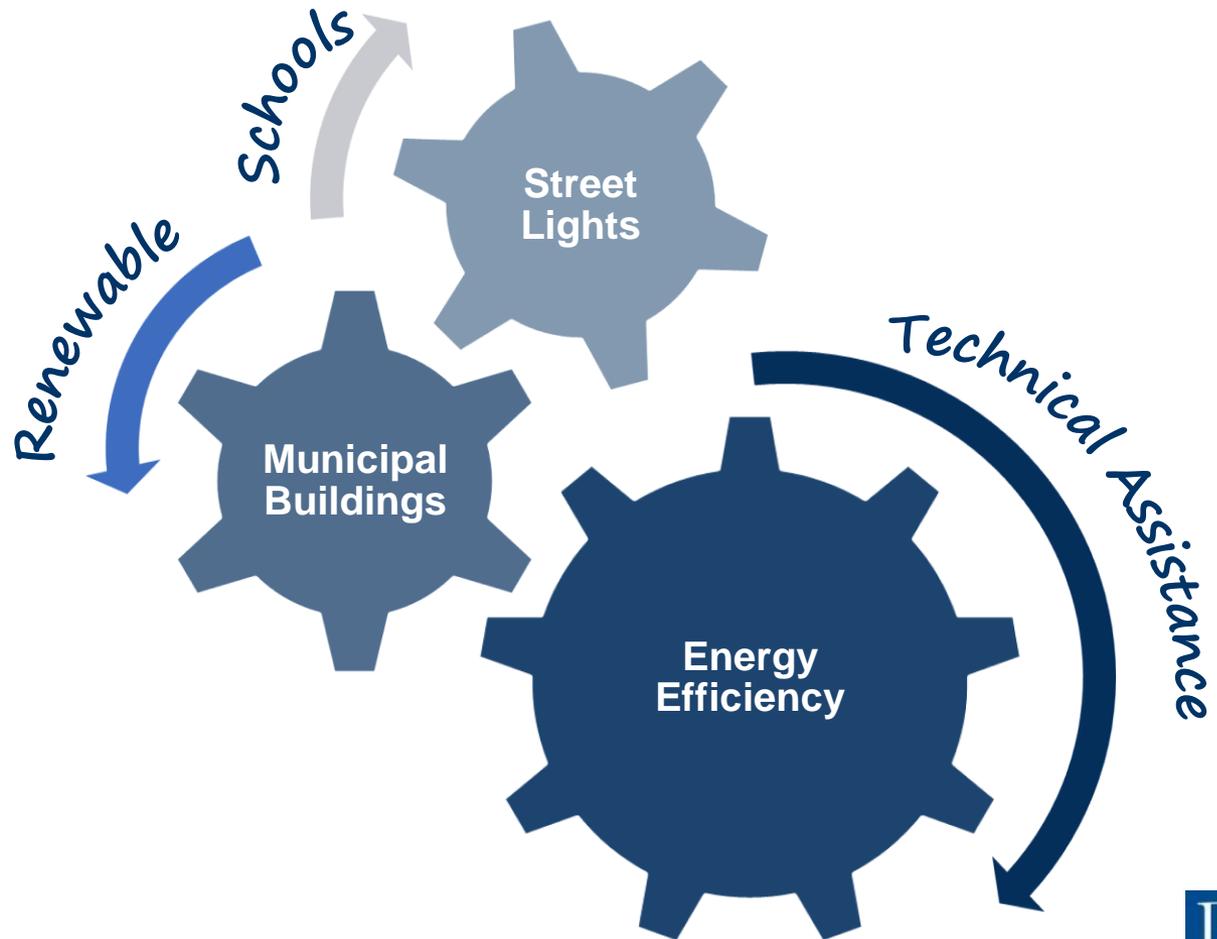
Martha Flynn, Assistant Commissioner, City of
Cambridge Inspectional Services Department

Phoebe Walker, Director of Community Services,
Franklin Regional Council of Governments

Mark Liffman, VP of Marketing, Business
Development and Sales, Clean Power Research

Green Communities Division

The energy hub for **all** Massachusetts cities and towns, not just designated “Green Communities.”



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Outreach - Regional Coordinators

- Regional Coordinators act as direct liaisons with cities and towns on energy efficiency and renewable energy activities
- Located at each of the DEP Regional Offices:



WERO – SPRINGFIELD: Jim Barry
Jim.Barry@state.ma.us



NERO – WILMINGTON: Joanne Bissetta
Joanne.Bissetta@state.ma.us



CERO – WORCESTER: Kelly Brown
Kelly.Brown@state.ma.us



SERO – LAKEVILLE: Seth Pickering
Seth.Pickering@state.ma.us



Green Communities Division - Programs & Resources for Municipalities

- Green Communities Designation and Grant Program
- MassEnergyInsight energy tracking and analysis tool
- Municipal Energy Efficiency Assistance
- Energy Management Services Technical Assistance
- Mass Municipal Energy Group (MMEG)
- Website filled with tools & resources:
www.mass.gov/energy/greencommunities

Email updates via e-blasts – Sign up by sending an email to:
join-ene-greencommunities@listserv.state.ma.us



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Recording & Presentation

- The webinar is being recorded and will be available on our website in approximately 48 hours at:
<http://www.mass.gov/eea/energy-utilities-clean-tech/webinars.html>
- Click on the camera icon top right of your screen to save any slides for future reference
- Use the Q & A icon on your screen to type in questions
- The slide presentation will also be posted at:
<http://www.mass.gov/eea/energy-utilities-clean-tech/webinars.html>



Rooftop Solar Challenge II

Under the second round of Rooftop Solar Challenge (RSC), DOER working to continue to reduce soft costs and coordinate with other New England states to learn and disseminate best practices

- Permitting resources
- Zoning resources
- Community shared solar resources
- Interconnection resources
- Financing resources

<http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/solar/sunshot-rooftop-solar-challenge.html>



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Poll Question 1

- Who is in the audience today?
 - a) Municipal officials
 - b) Municipal inspectors
 - c) Online permitting vendors
 - d) Other





CITY OF CAMBRIDGE ONLINE PERMITTING

Home Permitting GIS Instructional Videos

Log Out / Register

Links

- » Building
- » Electric
- » Housing
- » Plumbing
- » Public Works
- » Sanitary
- » Zoning

Welcome to the City of Cambridge On-Line Permit Program

The City of Cambridge's goal is to make the permit process convenient for the applicant and reduce the amount of log work currently required for some permits. *Inspection Services Department and Public Works Department* permits are available. Links to other Public Works permits can be found [here](#). Additional permits will be available in the future through this site.

To begin using the *On-Line Permit Program*, you will be required to register. Click on "**Register**" located on the right side of the grey bar above. After filling in the required information which will include your email address and a password, click submit. The City Departments will review for approval. Upon approval you will receive a notification. Following notification and using your email address and password to login, you may begin the permitting process.

Click on the "**Permitting**" link on the toolbar above. Click "**Begin Process**". A list of permits available on-line will appear. Click on the permit type you would like to obtain.

You are now ready to begin.

The City of Cambridge recommends Internet Explorer 9 or later when using this application. For OS X users, the City of Cambridge recommends Safari when using this application.

This application is not supported in Chrome.

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**Many reasons why the
City of Cambridge
decided online
permitting was the best
next step:**



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Customer Service

- Apply online from office, home or department counter
- Eliminate traveling from one department location to another for pre-application sign-offs
- Digitally submit all documentation
- Fees automatically calculated
- Pay online
- Email updates of application status
- Receive issued permits by email



Departmental

- Financial reconciliation
- Inspections entered real time on tablets in the field
- Immediate access to permit information by administrative staff
- Reporting
- Document/Data retention
- Reduction of paper and storage space



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The steps taken to implement online permitting:



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Internal Process

IT Project Manager and ISD Staff worked together to determine the scope of work

Worked with staff to obtain knowledge of:

- Permit types
- Business process
- Data collection required
- Documents required
- Reports required
- Fees



IT Project Manager and ISD Staff worked together to:

- Investigated what products were available
 - Visited municipalities using a variety of programs
- Proceeded through the RFP process
- Worked with Project Manager and their staff from RFP winning company to create all aspects of the database/online program
- Implementation
- Data Conversion
- User acceptance testing
- User training/Train the Trainer
- Produce Instructional Videos for Applicants
- Go Live! (1 ½ years)



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How has online permitting been received during our first 3 years?



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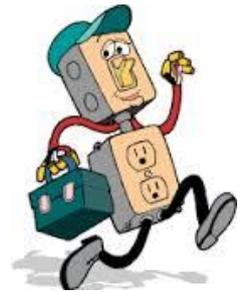
Contractors/Licenses/Residents

- Applicants are required to apply for all permits and licenses online.
- The majority of applicants do apply online
- There are always the contractors/licensees that claim they are unable to use a computer or state that the Plumbing/Electrical Boards requires Cities & Towns accept paper applications.
- Administrative staff are extremely helpful to applicants via the phone, email and computers in our lobby



The City Inspectors include:

- Building
- Electrical
- Housing
- Plumbing
- Sanitary



Result

- Were hesitant at first, but took to it very well. Of course we have our hiccups, but work our way through them.
- The Administrative staff work well with the program and appreciate all the work that went into the set-up.
- Continued daily IT support and upgrades



Poll Question 2

- Does your town have online permitting options for solar PV?
 - a) Yes, for both building and electrical permits
 - b) Yes, but just for building permits
 - c) Yes, but just for electrical permits
 - d) No, neither our building or electrical permits are online

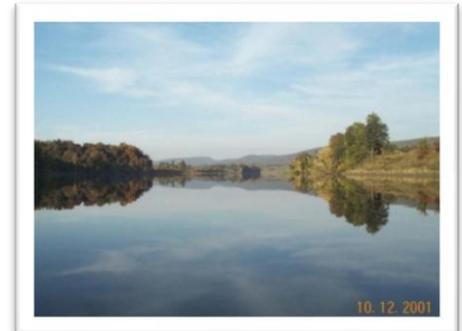
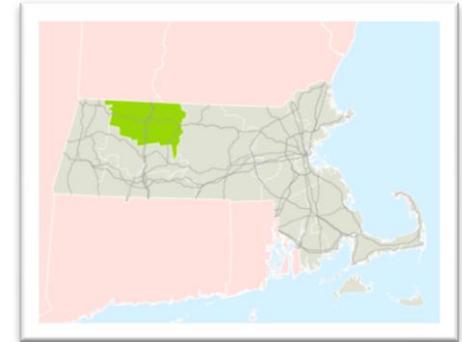




Online Permitting in a Rural Regional Inspection Program

Franklin County

- Franklin County is the most rural county in MA.
- 71,372 people, 725 square miles, 26 towns.
- Greenfield – 17,456 residents; Monroe – 121 residents.
- 22 of 26 towns have population under 5,000; 19 under 2,000; 8 under 1,000.



Franklin Regional Council of Governments (FRCOG)



- Former county government, now a municipal voluntary membership organization.
- All former county towns are members
- Mission is to serve the region and the 26 municipalities of Franklin County.
- Services include:
 - Regional Planning Commission
 - Regional preparedness and emergency planning
 - public health/substance abuse prevention
 - Legislative advocacy
 - Municipal services – town accounting, health district, cooperative inspection



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FRCOG's Cooperative Inspection Program



- 45 year old program serving 15 towns with Building, Plumbing/Gas, and Wiring Inspection, and Zoning Enforcement
- 8 of the towns are Green Communities.
- FCCIP processes over 2,500 building, plumbing, and wiring permits annually
- Housed in the Olver Transit Center, a zero-net energy building



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Online Permitting at FRCOG

- Purchased platform from Full Circle Technologies
- Went live July 1, 2011
- All permits are applied for, reviewed, paid for, and approved online
- Signoffs from Boards of Health, Conservation Commissions, Fire Dept, etc assigned centrally at FRCOG
- Payment collected at FRCOG
- 3540 registered users, including homeowners, contractors, town officials



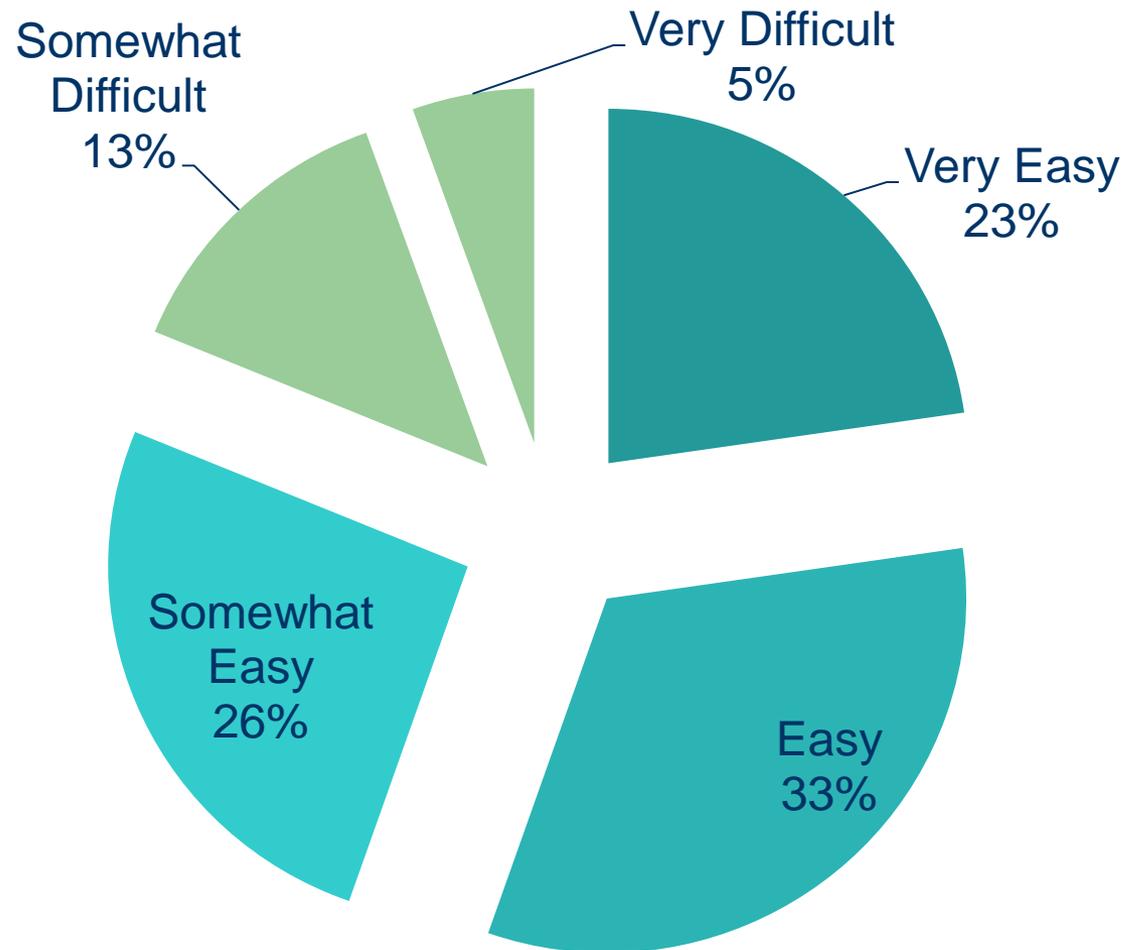
Implementation Challenges

- Internet and computer access
- Low technological literacy of many users, esp. some contractors and some of the volunteer board members who review the applications
- Software glitches with timing out, uploading documents

Lesson Learned: Extensive TA needed – hired dedicated part time staff person, added “how-to” documents to web site.



Customer Survey – How easy is it to use?



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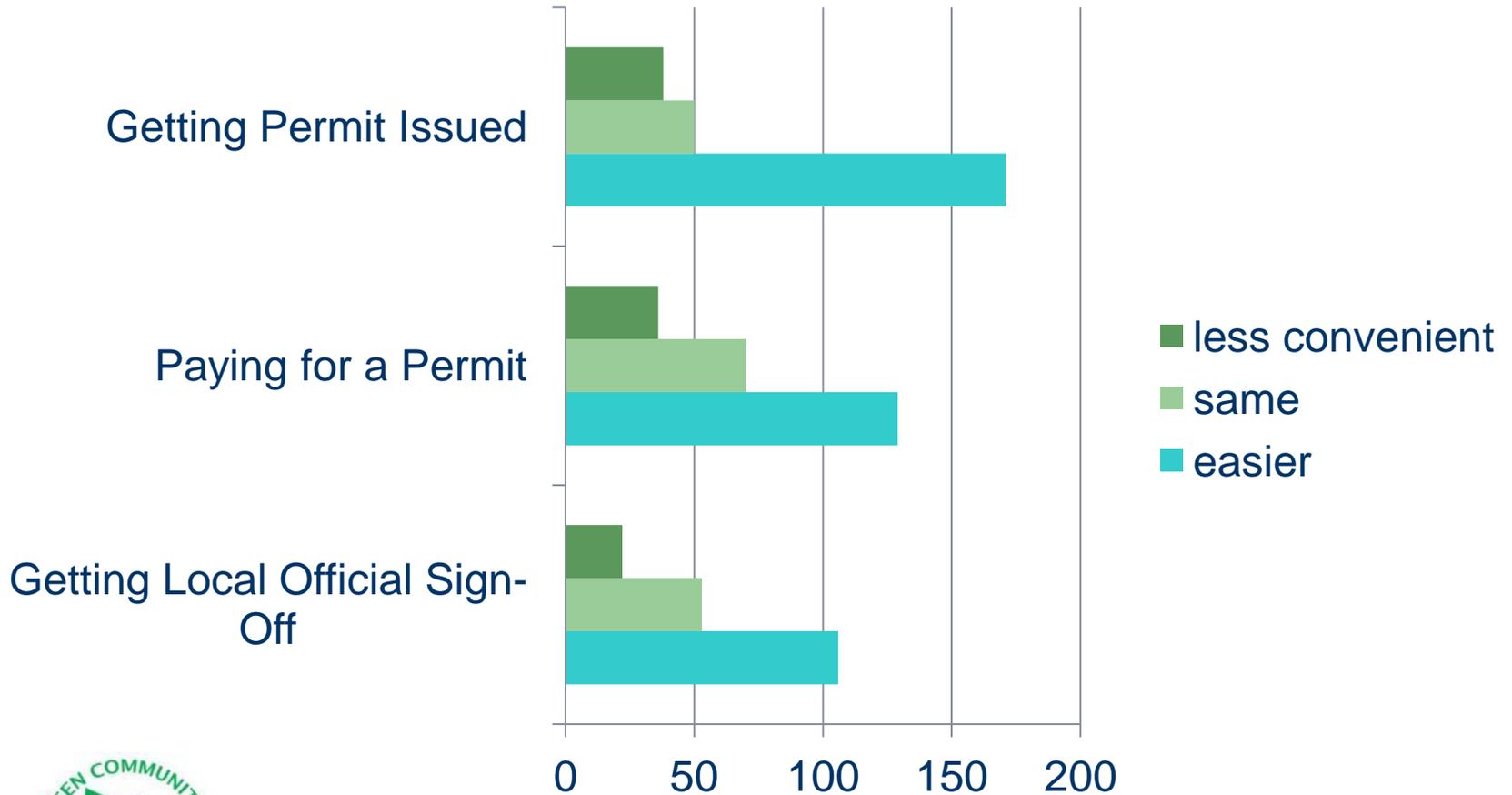


Positive Feedback

- Contractors found it even easier than other respondents (58%)
- 66% of respondents said that getting answers to their questions was somewhat to very easy.
- Over 75% of respondents said they complete the application process in half an hour or less.
- The vast majority of respondents reported that the current system is more convenient for paying for a permit.



How does the new system compare to the old one?



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User Comments

“Nice system. Wish more cities would copy your system. Keep up the good job”

“I love that I can contact you by email and that I always get a prompt response!”

“Program has come a long way – the FRCOG has been very responsive in getting bugs worked out”

“It’s a terrific tool that makes the permitting process MUCH more efficient”

“So much more consumer-friendly than the old process!”



Recommendations

- Explore multiple options for software
- Understand your users limitations and needs
- Don't assume the software developers understand your world
- Over-communicate
- Invest in robust customer support



Poll Question 3

- What is the biggest barrier to implementing online permitting in your municipality?
 - a) Cost
 - b) Stakeholder resistance
 - c) Broadband limitations
 - d) Employee resistance
 - e) Fear of job elimination
 - f) Other



PowerClerk Permit

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the Commonwealth or DOER.

Mark Liffmann, VP Sales & Marketing
Clean Power Research
December 16, 2015



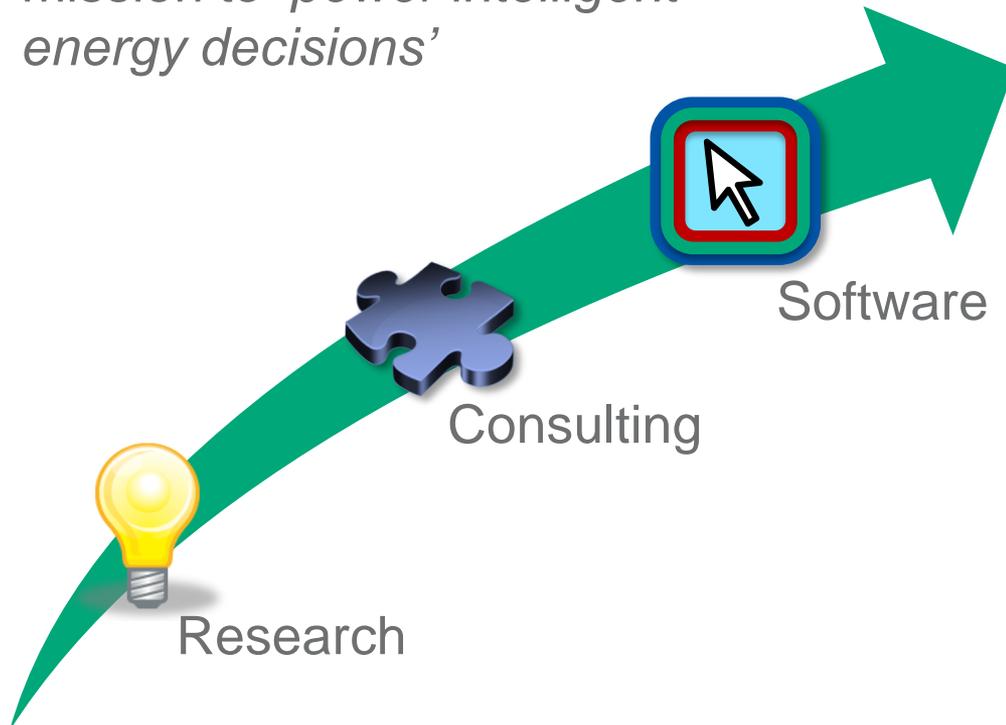
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Clean Power Research®

Founded in 1998 with the mission to 'power intelligent energy decisions'



SOLAR PREDICTION

Most widely used solar resource database

ENERGY VALUATION

>30 million solar estimations performed

PROGRAM OPTIMIZATION

>8 GW of renewable projects processed

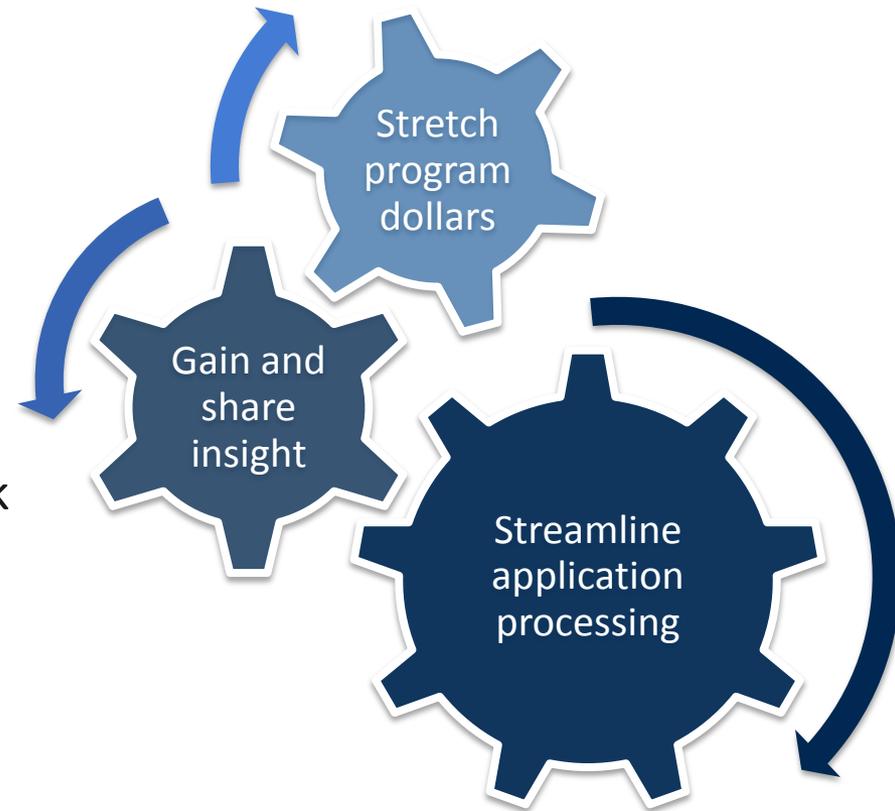


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The Creation of PowerClerk

- CPR background was incentive and program *design*
- Customer pain point was prog. *operations*
- Customers asked us to build PowerClerk Incentives
- SunShot Incubator 8 award: commercialization of PowerClerk Interconnect
- **SunShot Incubator 10 award: streamlining permitting**



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PowerClerk Permit Value Proposition

- Take permitting online and streamline processes
- Modular approach
- Implement quickly
- Cost effective for all size jurisdictions
- Self service configuration
- Integrates easily with other systems



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What We've Heard from Administrators

- **Need for Transparency**
 - Status updates require many calls, emails
 - Who owns project review for each project?
- **Reporting Challenges**
 - 15 minutes per application to transcribe from PDF or paper
 - Manual data entry => errors/duplicates
 - Wet ink signatures require additional truck roll
 - Difficult to report on installed systems from disparate databases
- **Managing Change**
 - Permit programs constantly evolving
 - Delays common for IT changes to backend systems



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PowerClerk Capabilities

- Stepwise Process



- Self-Service Program Design
- Clearly Codified Calculations
- Transparent Statuses
- Auto Communications & Deadlines
- eSignatures
- Application Programming Interface

Incentive \$40,500.00
\$1.35/W-DC (up to \$40,500) (Expires 4/30/2025) ▼
[Hide Details](#)
Incentive Amount: Incentive Rate x System AC Rating After
 $\$1.753 \times 227,810 \text{ W} \times 0.988 = \mathbf{\$394,731.27}$
Limit Incentive Amount to \$40,500.00: **\$40,500.00**

Full Name	Initials
Jeff Ressler	JR
DocuSigned by: <i>Jeff Ressler</i> 646C7F064B0247D...	DS <i>JR</i>



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Status Transparency

[HOME](#)[PROGRAM DESIGN](#) ▾[ADMIN](#) ▾[SETTINGS](#) ▾[CPR ADMIN](#) ▾[SUPPORT](#)

NET ENERGY METERING APPLICATION

[Change Program](#)[New NEM Application \(<10kW\)](#)

	Project # ▲	Current Status ◆	Current Status Timestamp ◆	Operation date ◆	PV System Nameplate Rating ◆	
+	NEM-00005	Approved for Signing	10/14/2014	10/31/2014	5.1	
+	NEM-00004	Application in Process	10/13/2014	10/31/2014	5.1	
+	NEM-00003	Permission to Operate	10/09/2014	10/31/2014	5.1	
+	NEM-00002	Approved for Signing	10/03/2014	10/31/2014	7.9	
+	NEM-00001	Awaiting Documentation	10/03/2014	10/31/2014	5.05	
+		Unsubmitted	10/03/2014			
+		Unsubmitted	10/09/2014			
+		Unsubmitted	10/14/2014			

Project # Current Status Current Status Timestamp Operation date PV System Nameplate Rating



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PowerClerk by the Numbers

380,000
applications submitted
online

8 GW
of capacity

2,250,000+
electronic documents
stored

8.5 million+
pieces of paper saved

60+
programs for
PV, solar hot water,
wind and hydro

28
utilities and agencies
use PowerClerk



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Questions?

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