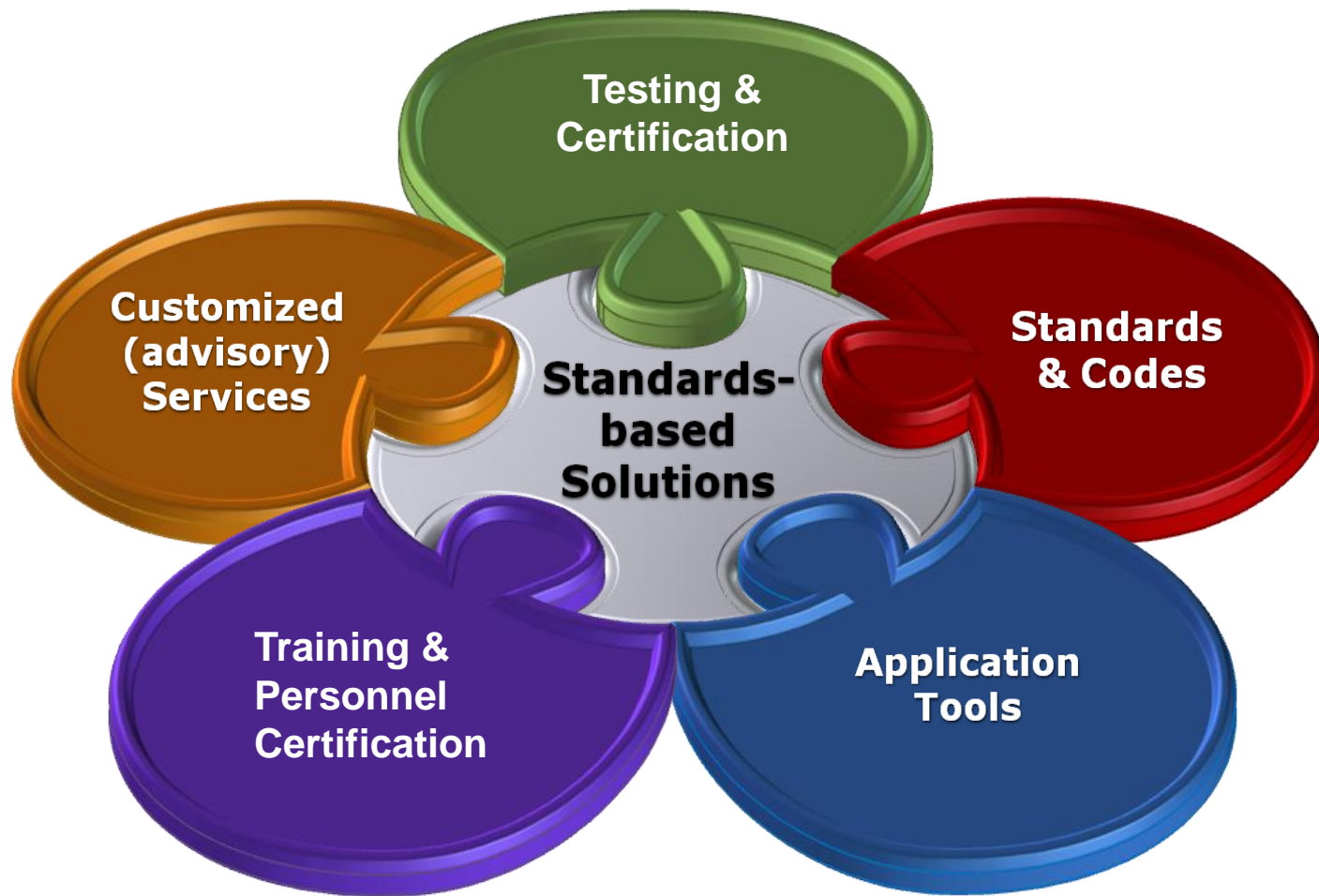


From Efficiency to Management: Trends in Energy

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CSA Solutions



CSA: Facts and Figures

- 3000 published standards, 9000 members, 1400 staff worldwide
- Testing labs across Canada—Edmonton locally—US, and Asia
- 30 standards related to energy efficiency, oil and gas pipelines and pipeline security
- Lead International development of Environmental Management, Climate Change and Energy Management
- Recognized by NRCan (Energy Verification) and EPA (Energy Star) Testing and Certification body

Today's Energy Drivers

1. Ensure Supply: Access to and Security of Energy Sources
2. Cost improvement and Green Jobs
3. Reduced environmental Impact – carbon performance
4. Sustainable Manufacturing
5. Support Trade

Today's Headlines: "Canada continues global leadership on Energy Efficiency Improvement"

- NRCan announces funding for Projects that support the **Canada-US Clean Energy Dialogue** and support the development and **implementation of ISO 50001, the new international energy management standard.** This important tool will allow energy users to identify energy savings and to develop and implement actions to maximize energy performance.

Tools to Transform Energy Market Policy Makers & Private Sector

- ❑ Financial incentives
- ❑ Regulations
- ❑ Voluntary programs
- ❑ Leadership
- ❑ Information



Standards and Testing Support Introduction of New and Innovative Energy Technologies

- Photo Voltaic Panels, Hydrogen Fuel Cells, **Wind** and Marine Energy, **Carbon Capture and Storage**, Electric Vehicles are being introduced using NA and International standards
- Over 60 stakeholders are working with CSA to adopt the **ISO 50001** into Canada
- CSA opened its first **PV testing laboratory in BC**, building a second in New Mexico with German partner.

The Investment - Standards

- Direct cost for CSA EE&R standards program (4 years) is **\$4.7 Million**
- In-kind contribution for members participating on TCs and TSCs estimated at **\$5.2 Million**
- Total number of new national standards published in the past **four years** in both official languages - **37**

The Payoff: More efficient products, reduced emissions and big savings!

| | Electric GWh (\$M) | Gas m ³ x10 ⁶ (\$M) | Total PJ (\$M) | Equivalent # of Households (thousands) | Equivalent # of Power Plants |
|-------------|---------------------------------|--|--------------------------|---|------------------------------------|
| 2005 | 1080 (\$70M) | 50 (\$16M) | 6 (\$86M) | 51 | 0.4 |
| 2010 | 6250 (\$403M) | 290 (\$110M) | 34 (\$513M) | 305 | 2 |
| 2015 | 24,490 (\$1,545M) | 740 (\$248M) | 117 (\$1,793M) | 1,050 | 9 |
| 2020 | 31,110 (\$1,997M) | 1,140 (\$385M) | 156 (\$2,382M) | 1,405 | 12 |

Note: The Payoff: NRCAN: EE Amendments 5-10: 2001-2008* (Projected Savings from Energy Efficiency)



Thank you

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