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Alberta Offset System

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Outline

1. Overview of GHG regulation and Alberta offset system
2. How emission offsets are generated
3. Features and benefits of offset credits, including means to ensure quality
4. Where/How potential buyers can purchase offset credits
5. Tracking the use of offset credits



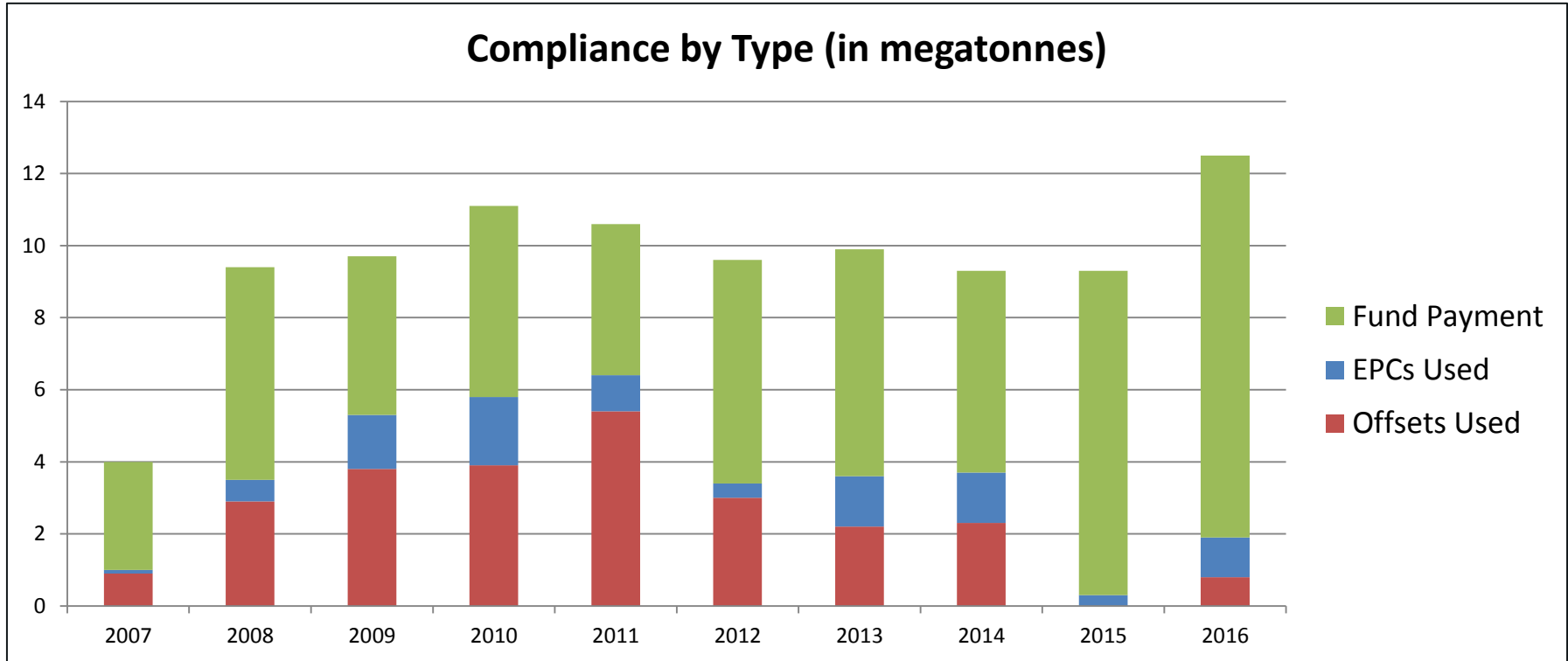
1. Overview of GHG regulation and Alberta offset system

- Specified Gas Emitters Regulation (2007 to 2017)
- Carbon Competitiveness Incentive Regulation (2018)
 - Applies to facilities emitting equal to or greater than 100,000 tonnes CO_{2e} per annum
 - Regulates generation of emissions offsets
 - Product-based emission benchmarks (best in class, top quartile)
 - Regulated facilities comply by:
 - Reducing on-site emissions, submitting emission offsets, submitting emission performance credits, or paying into “the fund”



1. Overview of GHG regulation and Alberta offset system

Compliance by Type (in megatonnes)



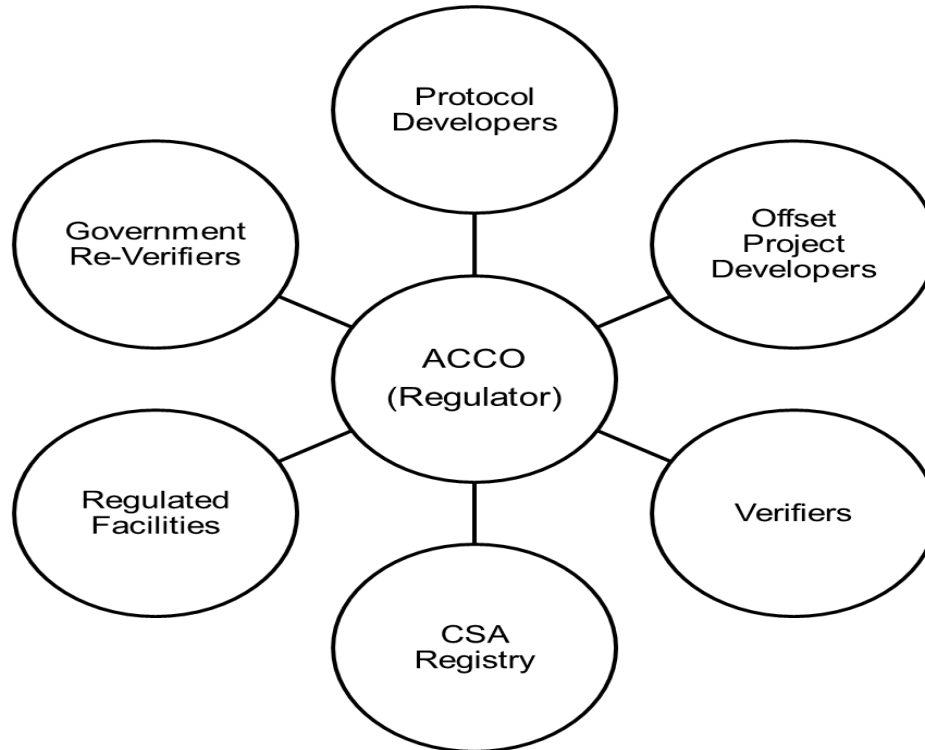


2. How emission offsets are generated

- Offset generation governed by regulation, standards, and protocols
- Offsets are generated by project developers, using quantification protocols approved by Government. Emissions offsets generated are serialized and listed on the Alberta Emission Offset Registry
- Currently over 30 quantification protocols are approved for use
 - Key types include: Wind, Biomass power, Landfill Gas Capture, Composting, Biogas, Energy Efficiency, Waste Heat Recovery, Carbon Capture and Storage, Conservation Cropping
- Over 45 million emission offsets registered since 2007
- Over 25 million emission offsets used for compliance from 2007-2016



2. How emission offsets are generated





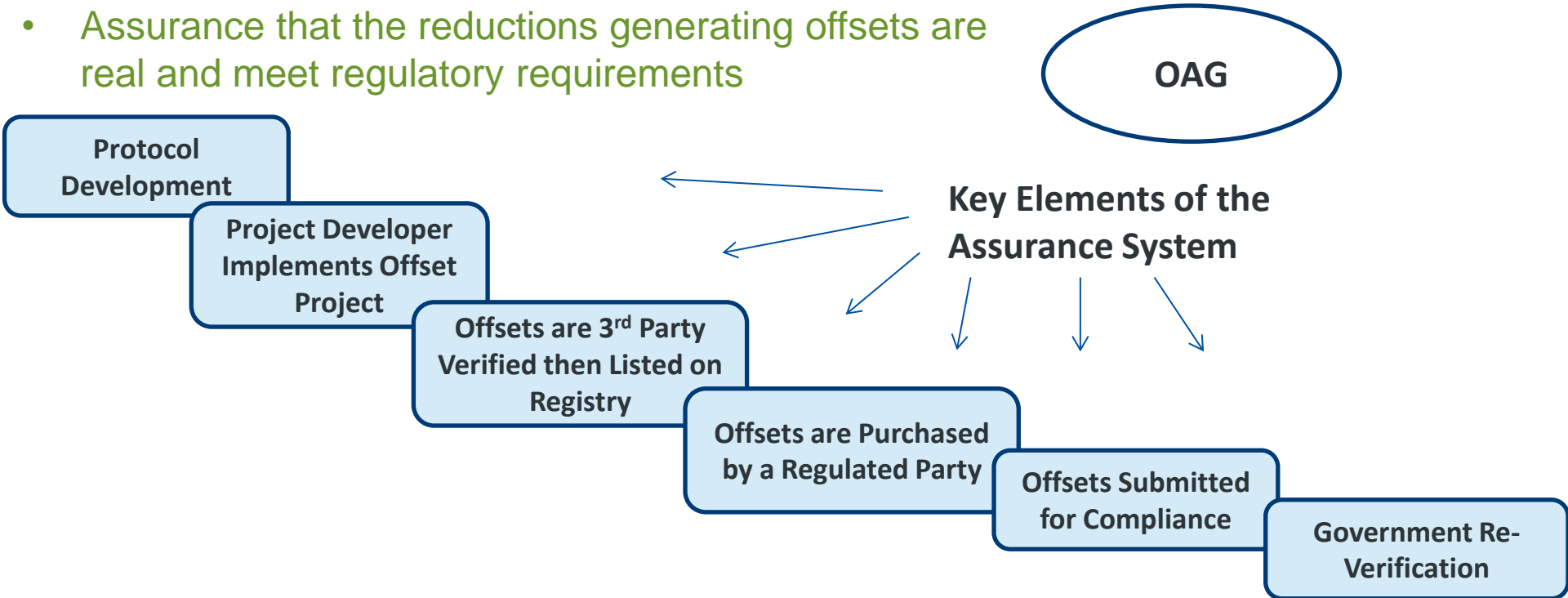
3. Features and benefits of offset credits, including means to ensure quality

- Benefits of Alberta offsets include:
 - Real and immediate GHG reductions
 - Cost effective compliance option for regulated facilities in Alberta
 - Economic diversification
 - Ability to drive emission reductions outside of regulated facilities
- Regulatory Requirements
 - Reductions must occur in Alberta
 - Must be “additional”
 - Must be from actions taken on or after Jan 1, 2002
 - Must be real, demonstrable, quantifiable and measurable
 - Must use an approved protocol and be verified by a qualified third party



3. Features and benefits of offset credits, including means to ensure quality

- Assurance that the reductions generating offsets are real and meet regulatory requirements





4. Where/How potential buyers can purchase offset credits

- Alberta maintains a registry for both emission offsets and emission performance credits.
- Offset registry is a listing service
- Contains all project documentation
- Assigns unique serial numbers to offsets
- Tracks ownership and use of offsets
- Transparent / Public access:
https://www.csaregistries.ca/albertacarbonregistries/eor_about.cfm



5. Tracking the use of offset credits

- Use of emission offsets are tracked on the offset registry.
 - Registry states:
 - Active, pending retirement, retired, retired for compliance, removed, revoked
 - Intra-registry and inter-registry duplication checks are performed to ensure there is no double-listing
 - Provides a system of safeguards to ensure that system rigour is protected



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