

## Sustainable TRANSPORTATION



# Webinar: Final Rule on Electric Drive Vehicles and Infrastructure

**Alternative Fuel Transportation Program** 

**Ted Sears**, National Renewable Energy Laboratory **Ira Dassa**, New West Technologies, LLC

April 15, 2014

#### **Agenda**

- Regulatory Background
- Alternative Fuel Vehicles
- Credit Allocations Under New Rule
  - Vehicles
  - Investments
- Other Program Modifications
- Summary
- Contact Information



#### **Program Background**

- Energy Policy Act of 1992 (EPAct 1992)
  - Promote alternative fuel (AF) use to maximum extent practicable
  - Requires certain state government and alternative fuel provider fleets to acquire light-duty alternative fuel vehicles (AFVs)
- Current Annual AFV-Acquisition Requirements
  - State fleets = 75% of annual non-excluded light-duty vehicle (LDV) acquisitions
  - Alternative fuel provider fleets = 90% of annual non-excluded LDV acquisitions
- AF Use
  - Alternative fuel providers must use AF when an AFV is operating in an area where the AF is available



#### **Compliance Methods**

- Standard Compliance (SC)
  - Acquire light-duty AFVs
  - Biodiesel use achieve up to 50% of annual AFV-acquisition requirements
  - Exemptions granted as administrative relief if vehicle or AF not available
- State Plan
  - State may submit plan to include AFV acquisitions in partnered fleets
- Alternative Compliance (AC)
  - Fleets submit plans to reduce petroleum use equal to amount used if fully compliant and all AFVs used AF



#### **New Rule**

- Section 133 of the Energy Independence and Security Act of 2007 (EISA)
  - Directed U.S. Department of Energy (DOE) to allocate AFV credit under the Alternative Fuel Transportation Program (AFTP or Program) for:
    - Acquisition of certain electric drive vehicles
    - Investments in:
      - Qualified AF infrastructure
      - Qualified AF non-road equipment
      - Emerging technology relating to electric drive vehicles



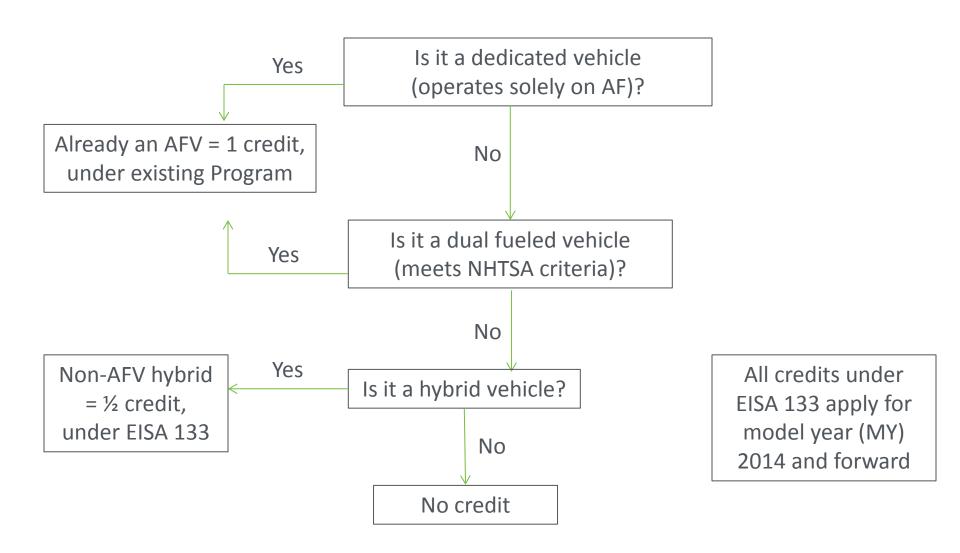
#### **Vehicle Credit Allocations – AFVs**

- AFVs are:
  - Dedicated vehicles
    - Operate solely on one or more AFs
  - Dual fueled vehicles
    - Capable of operating on AF and on gasoline/diesel
    - Key: NHTSA makes this determination based on EPA test
  - AFVs receive 1 credit
- All other vehicles are not AFVs

## **Credit Allocations – Non-AFV Hybrids**

- Hybrid electric vehicles that are neither dedicated vehicles nor dual fueled vehicles
  - Classified as hybrid vehicles under the Program
  - These non-AFV hybrids are allocated ½ AFV credit

#### **Vehicle Credit Allocation Tree**



## **Neighborhood Electric Vehicles (NEVs)**

- ¼ AFV credit
- Not considered "motor vehicles" under EPAct 1992 do not count as LDV acquisitions
- Credit for NEVs acquired in MY 2014 and forward

## Medium- and Heavy-Duty Electric Vehicles (EVs)

- Battery EVs and PHEVs = AFVs
- Other hybrid MD/HD vehicles that are not AFVs → ½ AFV credit
- Not counted as vehicle acquisitions
- Credit earned only after fleet meets its light-duty AFVacquisition requirements

#### **Investment Credit Allocations**

- Alternative Fuel Infrastructure
  - AF stations
  - Charging or battery exchange stations
    - Excludes 120V electrical outlets (i.e., basic wall outlets)
  - 1 AFV credit for every \$25,000 invested
    - Maximum per MY
    - Credit for infrastructure owned/operated by others
    - Seek credit in MY infrastructure put into operation
  - Credit for investments in MY 2014 and forward

#### **Investment Credit Allocations (cont'd)**

- Alternative Fuel Non-Road Equipment
  - Mobile non-road equipment
  - Must operate on AF
  - 1 AFV credit for every \$25,000 invested
    - Maximum per MY
    - Seek credit in MY equipment put into operation
  - Credit for investments in MY 2014 and forward

## **Investment Credit Allocations (cont'd)**

- Emerging Technology
  - Pre-production/pre-commercial versions of electric drive vehicles
  - 2 AFV credits for first \$50,000 invested, 1 AFV credit for each additional \$25,000 invested
    - Maximum per MY
    - If investment credit is sought, cannot also count as AFV acquisitions
  - Seek credit in MY technology put into operation, for investments in MY
     2014 and forward

#### **Credit Allocations**

- General Concepts
  - Aggregation of investment amounts
    - No fractional credits in any investment category but may aggregate sums invested in different categories
      - Invest \$10,000 in private AF station and \$15,000 in AF non-road equipment aggregate these (\$25k) to earn 1 AFV credit
    - May not aggregate funds from a category if already earned maximum AFV credits in MY for that category

## **Credit Allocations (cont'd)**

- General Concepts (cont'd)
  - Multi-year investments
    - Investments may span more than one MY
  - Rounding of credit total
    - Total your credits earned, including all fractional credits, and round to nearest whole number

#### **Other Program Modifications**

- Credit Activity Reporting Under SC
  - Must seek AFV credit through annual credit activity report (CAR)
    - Fulfilled via your annual report
    - Annual report form and online reporting system incorporates CAR
  - Webinars for updated annual reporting compliance tool



#### Other Program Modifications (cont'd)

- Exemption Process Under SC
  - Timing
    - Revisions reflect existing exemption process
      - Submit exemption request after annual report filed
      - No earlier than September 1
      - No later than January 31 following MY for which exemption is sought
    - 30 days to respond to a DOE request for additional information
    - If annual report shows AFV-acquisition deficiency, fleet must indicate in its report if it intends to submit an exemption request

## Other Program Modifications (cont'd)

- Exemption Process Under SC (cont'd)
  - Non-AFV hybrid vehicles
    - Widely available
    - Must indicate if at least 50% of annual AFV-acquisition requirements were met through non-AFV hybrid acquisitions
    - Unless demonstrate non-availability of non-AFV hybrids in the type/model fleet needed, number of exemptions DOE grants will be limited based on shortfall in these acquisitions

## Other Program Modifications (cont'd)

- AC
  - Single AC plan application deadline
    - July 31
    - Intent deadline remains March 31
  - Clarification of regulatory provisions on the rollover/use of excess petroleum reductions
  - If fleet's AC waiver is revoked, no exemptions available when fleet is returned to SC

#### **Summary**

- Regulatory Program focused on LDVs
- AFVs earn 1 credit
- Credit Allocations Under New Rule, for MY 2014 and forward
  - Hybrid vehicles earn ½ credit
  - NEVs earn ¼ credit
  - MD/HD vehicles earn 1 credit if an AFV, ½ if hybrid
  - Investments earn credits by monetary threshold with maximum per MY
  - Aggregation, multi-year investments, and rounding
- Other Program Modifications
- Webinars for updated annual reporting compliance tool



#### **Credit Allocations Under the 133 Final Rule**

Credit Category	Credit Allotment	Limitations/Other
HEV	½ credit	
PHEV	½ credit	
FCEV	½ credit	
NEV	¼ credit	Not included in covered LDV count
Medium- or heavy- duty HEV	½ credit	Not included in covered LDV count
Alternative Fuel Infrastructure	1 credit per \$25,000 invested*	Maximum of 5 credits if private infrastructure, 10 credits if publicly accessible infrastructure; credit allocated in model year placed into operation
Alternative Fuel Non-Road Equipment	1 credit per \$25,000 invested*	Maximum of 5 credits per fleet per model year
Emerging Technology	2 credits for initial \$50,000 invested and 1 credit per \$25,000 thereafter, or 1 credit per preproduction vehicle*	Maximum of 5 credits if counting based on amount invested, per fleet per model year

<sup>\*</sup> Aggregation of dollar amounts allowed



#### **More Information**

- http://www1.eere.energy.gov/vehiclesandfuels/epact/guidan ce documents.html
- Dana O'Hara, DOE
   AFTP Regulatory Information Hotline
   202-586-9171, regulatory.info@nrel.gov
- Ted Sears
   National Renewable Energy Laboratory
   202-488-2221, <u>Ted.Sears@nrel.gov</u>
- Ira Dassa
   New West Technologies, LLC
   240-696-6560, IDassa@nwttech.com

