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1. ?????Westinghouse Electric Manufacturing Company?

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??500??

Westinghouse????????

????1886?178?????.??1889????????????????????Westinghouse
Electric Manufacturing Company??1945?10???????

????????26?????????250???,????125000?????135000????????107???(1986)

??4000?????1886????????????????????1890
????????????????1895?????????????????????????5000?????1900????????????????????1955????????????????????
1957??500?????????,70?????1100???????,
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??????56?????????????6792?,????????????????1750??????650?,????325

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2014????????1??4?AP1000
??AP1000?????????

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??????20????????28??20
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?????2020????????????5,800????????????????????????????????1,569?????

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2. ?????

AREVA????????????????????????500????AREVA

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AREVA????????????????????????AREVA? ?????????????????120????????????AREVA
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AREVA????????40????????????100

??AREVA

??578????????????????AREVA

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AREVA????????????????????2001??AREVA????????????????(ALSTOM)?9.2

????????????????????AREVA T&D????????????????????????????????(AREVA)

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2004????????????????(ALSTOM T&D) ?????????????????????(AREVA T&D)

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GEN-19601990LWR?PWR?BWR
CANDU/VVER/RBMK

GEN-19902010
advanced boiling water reactors, ABWR
80+?AP600?European pressurized reactor, EPR

GEN-2030
250017% 79% 2002444
26259% 503162%

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2000?5?GIF?
2000?8?2001?3?

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DOE
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DOE?2001?4?12?94?28?32?17?17?2002?9?19
?20?GIF?10?94?

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gas-cooled fast reactor, GFR
GFR?288?850?

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????????(lead-cooled fast reactor, LFR)????????/

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LFR????????????????????LFR????????1200????????????????????300?400

????????????????15?20??50?100????????LFR????????????????????????

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????molten salt reactor, MSR????????????????????????????????????MSR

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1000????????700?800??????

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????sodium-cooled fast reactor, SFR????????????????????????????SFR

??150?500?????-?-????-

????????????500?1 500?????-?????

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????(very high temperature reactor, VHTR)

??HTTR????????????HTR-10??

VHTR????????????1 000????????????????????????????????/

????????????????????600?????

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????super-critical water-cooled reactor, SCWR????????????374?22.1

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??1

700????????25????????510?550??

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2015?6?30??

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??2014?3

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??????EPR???????????

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1.????????????????

2.??????

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??(AFCEN)????????????????(ISNI)????????????(SNPI)

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??2008

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??2014

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MIT????????????????????????????????????Transatomic Power????????????????????????????????2013?ARPA-E

??200?????????????????????????????????

Transatomic Power????????????????????????????????????Mark Massie?Leslie Dewan????????????????

Nuclearati????????????????Twitterati??2013?ARPA-E

??200?????????????????????????????????

??Russell Wilcox????????????????????MSR????????????????????E-

Ink????????????????????MSR????????????????????????????????????50?????????????????????Transatomic?MSR

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PS: ARPA-E????????????????????

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?????NPRV?

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