

Netherlands Enterprise Agency



Guarantees of Origin implemented in Netherlands

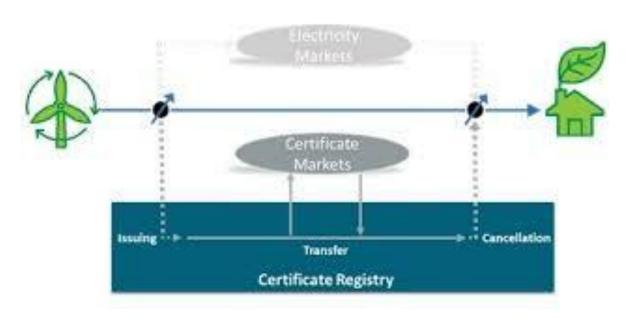
Ir. Kees W. Kwant





Guarantees of Origin (COM 2009/28, art 15

A document about a product and registration



- Proof of production
- A buyer/market
- A registry
- Issuing body
- Quality
- Quantity
- Price
- Trust





A guarantee or Origin

Certificate Number +

643002406556100800000011548778 643002406556100800000011548776 87168679999380000000000000449 87168679999380000000000013977 87168679999380000000000013978 87168679999380000000000013980 87168679999380000000000013981

First Previous

Next Last

| G | eneral | Meas | surement Report | Production Instal | lation |
|----------------------------|--------------------------|----------|--------------------------|-----------------------------|--------|
| Certificate Number From | 8716867999938000000000 | 00000449 | Certificate Number To | 871686799993800000000000000 | 0654 |
| Energy Medium | Electricity | | Purpose | Disclosure | |
| Product Types | Source | | Multi Certificates | E | |
| Туре | gvoDuurzaamElectriciteit | | ICS | | |
| Own Use | | | Imported | Π | |
| Issuing Body | TenneT | | Competent Body | NL01 | |
| Issue Date | 03-05-2012 | | Expiration Date | 03-05-2013 | |
| Gasification | | | # of certificates | 206 | |
| Country of Origin | Netherlands | | Status | Valid | |





NL Electricity law (1998)

- Article 73: Minister responsible to issue GOO's for Renewable Electricity and CHP
- Minister opens an account for GOO's for producers, traders and buyers
- Article 74: The minister can mandate the taske
- Article 75, 76: GOO's can be traded in EU
- Article 77: The exact implementation can be determined in a Ministerial Regulation



Implementation



- Implementation body is: <u>www.certiq.nl</u>
- owned by TENNET
 - Government owned grid operator







Input screen for producers and buyers

| 111111 | | | | Log |
|----------------------|---|---|--|---|
| earch Certificates | | | Certificate Number To | |
| AN Code | | | Energy Medium | All |
| ssue Date From | 09-2012 | | Issue Date To | 01-10-2012 |
| xpiration Date From | | | Expiration Date To | |
| roduction Date From | | | Production Date To | - |
| rader | c | 2 | Technology | T020001 (Wind Unsp |
| uel | | | Status | All |
| Country of Origin | iands 💌 | | Certificate Type | Disclosure certificate GO renewable electricity |
| | | | | GO renewable heat GO cogeneration Other Cogeneration certificate |
| ertificate Number • | | General | Measurement Report | GO cogeneration Other Cogeneration certificate Search |
| 1 | Certificate | General | Measurement Report | GC cogeneration Other Cogeneration certificate |
| 1 | Certificate Number From | | Certificate Number To | GO cogeneration Other Cogeneration certificate Search Production Installation |
| 1 | Certificate | General Electricity Source | Certificate Number To Purpose Multi | GO cogeneration Other Cogeneration certificate Production Installation Disclosure |
| 1 | Certificate Number From Energy Medium | Electricity | Certificate Number To Purpose Multi Certificates | GO cogeneration Other Cogeneration certificate Production Installation Disclosure |
| 1 | Certificate Number From Energy Medium Product Types | Electricity | Certificate Number To Purpose Multi Certificates | GO cogeneration Other Cogeneration certificate Production Installation Disclosure |
| 1 | Certificate Number From Energy Medium Product Types Type | Electricity Source gvoDuurzaamElectriciteit | Certificate Number To Purpose Mutti Certificates ICS Imported Competent | GO cogeneration Other Cogeneration certificate Production Installation Disclosure |
| Certificate Number + | Certificate Number From Energy Medium Product Types Type Own Use | Electricity Source gvoDuurzaamElectriciteit | Certificate Number To Purpose Multi Certificates ICS Imported | GO cogeneration Other Cogeneration certificate |





Production of GO's in Netherlands

| 15-10-oktober_el nd Bewerken | | | | | | | | | _ | | | | | | | | | |
|--|--------|--------|--------------|---------|-----------|--------|------------------|----------------|-------------------|--------|--------------------------|------------------|--------|--------|--------|----------|--------|--------------------|
| 4 1 / 5 | | 182% | • | Zo | eken | • | | | | | | | | | | | | |
| | | | | | | | | | | | · • · | -3 | | | | | | |
| Produ | uction | of re | newa | ahle el | ectric | itv in | the Ne | etherla | ands | | | | | | Sep-2 | 015 | Last | 12 months |
| (Based o | | | | | | ity in | | | anao | _ | | Total | | - | | B16.552 | | 11.834.233 |
| · | | | | | | | | | | | | Bioma | SS | | | 277.197 | | 4.878.843 |
| | | | | | | | | | | | | Hydro | | | | 4.107 | | 88.193 |
| | | | | | | | | | | | | Solar | | | | 10.449 | | 102.698 |
| | | | | | | | | | | | | Wind | | | | 524.799 | | 6.764.499 |
| 900 - 800 - 700 - 500 - 400 - 300 - 200 - 100 - | > | | \checkmark | | \langle | | \wedge | L | 1 | V | $\widetilde{\checkmark}$ | | | | | | | \mathbf{X} |
| o + | 201210 | 201212 | 201302 | 201304 | 201306 | 201308 | - 201310 Biom | 501312 1855 | - 201402 Hydro | 201404 | Solar | 501408 501408 | 201410 | 201412 | 201502 | 201504 - | 201506 | 201508 - |
| 210 × 297 mr | m ∢ | | | 1 | | | | | | III | | | | | | | | |
| | | | × | 6 | | | | | | | | | | | | ő. | • | 22:06 (الله (الله) |

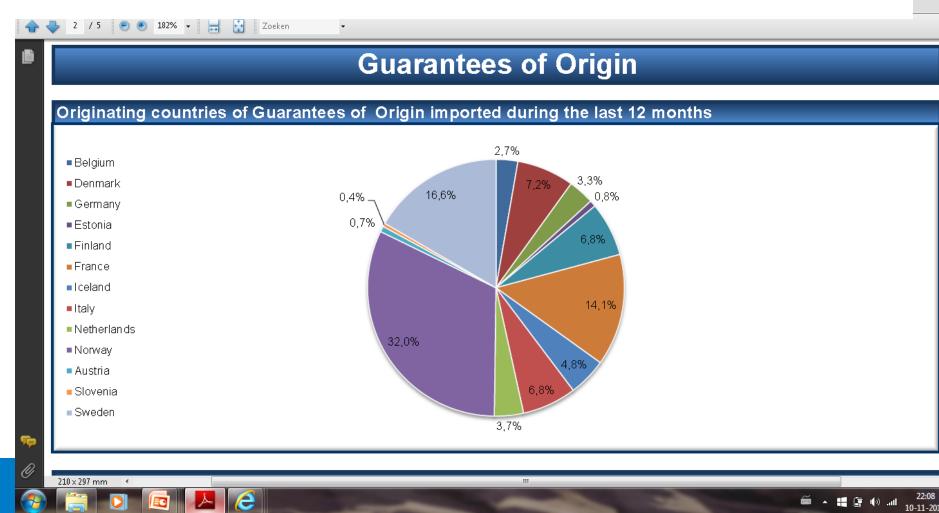


Imported GO's

| mpone | d Guarantees | s of Ori | igin fo | or ren | ewable | electr | ricity | | | | Oct | -2015 | Last 1 | 2 month |
|---|--------------|----------|---------|--------|--------|--------|--------|------------|--------|--------|--------|-----------|--------|----------|
| In MWh) | | | | | | | | | Total | | 4 | 4.859.708 | 3 | 32.582.1 |
| | | | | | | | | | Biom | | | 203.491 | | 2.152.4 |
| | | | | | | | | | | nermal | | 0 | | 370.0 |
| | | | | | | | | | Hydro | • | ; | 3.647.234 | | 23.422.0 |
| | | | | | | | | | Solar | | | 210.000 | | 613.3 |
| | | | | | | | | | Wind | | | 798.983 | | 6.024.1 |
| 9.000 | _ | | | | | | | tricity in | | | | | | |
| 8.000 7.000 6.000 5.000 4.000 | | | - | ·····P | | 1 | | | | 1 | | _ | | - |
| 8.000 7.000 6.000 5.000 4.000 3.000 2.000 | | | | | | | 1. | | | | | | | |
| 8.000 7.000 6.000 5.000 4.000 3.000 2.000 1.000 0 | | | | | | | 1. | | | | | | | |
| 8.000 7.000 6.000 5.000 4.000 3.000 2.000 1.000 | 201301 | 201305 | 201307 | 201309 | 201311 | | 201403 | 201407 | 201409 | 201411 | 201503 | 201505 | 201507 | 201509 |

Country of Origin

EC







Certificate Activity in NL 2012 - 2015

| | itieit_engels.pdf - Adobe Reader 1 Document Opties Venster Help | | | - 0 X | |
|----------|--|----------------------------|----------------|-------|--|
| | 150% • E Zoeken | | | | |
| | Certificate activity (in MWh) | Oct-2015 | Last 12 months | | |
| | Issued certificates | 942.208 | 12.484.490 | | |
| | Imported certificates | 4.859.708 | 32.582.106 | | |
| | Increase of certificate balance | 5.801.916 | | | |
| | Exported certificates | 127.159 | | | |
| | Cancelled certificates | 3.942.227 | 39.572.235 | | |
| | Certificates for on-site consumption (not tradable) | 52.358 | | | |
| | Expired certificates | 65.262 | 1.460.275 | | |
| | Decrease of certificate balance | 4.187.006 | 45.611.003 | | |
| | | | | | |
| | Increase of certificate balance | 5.801.916 | | | |
| | Decrease of certificate balance Mutation in valid certificate balance | 4.187.006 | | | |
| | Mutation in Valid Certificate balance | 1.614.910 | -044.407 | - | |
| | Certificate activity (in 1.000 MWh) | | | - | |
| | 12.000 | | | | |
| | 10.000 | | | | |
| | 8.000 | _ | | | |
| | | | | | |
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| | -4.000 | | | | |
| | -8.000 | - | | | |
| | | 5 8 8 | 6 8 | | |
| | 201305 201305 201305 201305 201305 201305 201305 201305 201405 201405 201405 201405 201405 201405 201405 201405 201405 201405 201405 201305 2014011 201405 20005 201405 200505 200505 200505 200505 200505 200505 200505 20 | 201503 201503 201505 | 201507 | | |
| F | | | | | |
| | Issue Import Cancel Consumption | Expiry ——Balance mutatio | n | | |
| | | | | | |

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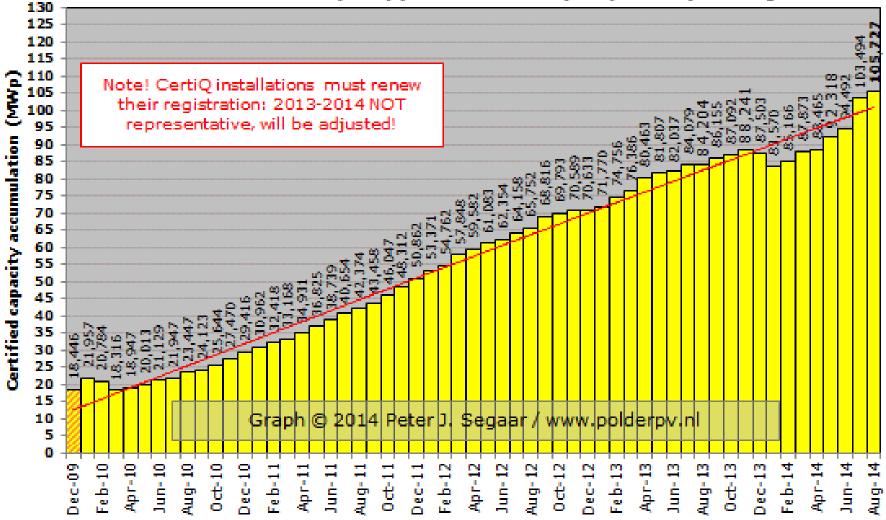
Registration of production devices

| per_elektriciteit_engels.pdf - Adobe Reader ken Beeld Document Opties Venster Help | _ | | . 0 × |
|---|----------|---------------|-------|
| / 5 💿 🖲 200% - 📑 🛃 Zoeken - | | | |
| | | 1 | ^ |
| Production devices electricity | | | |
| ≥S | Per 01-′ | 11-2015 | |
| | Number | Capacity (MW) | |
| Total | 12.652 | 13.023,236 | |
| Biomass | 270 | 8.928,811 | |
| Of which: | | | |
| Fermentation devices | 168 | 181,429 | |
| Landfill gas devices | 29 | 19,222 | |
| Waste incineration devices | 30 | 1.414,000 | = |
| Co-firing devices | 13 | 6.953,000 | |
| Other biomass | 30 | 361,160 | |
| Hydro | 14 | 26,211 | |
| Solar | 11.262 | 187,568 | |
| Wind | 1.106 | 3.880,646 | |





Accumulation of nominal capacity of certified PV-installations in Netherlands (MWp). Data: monthly reports by CertiQ.







Steps for implementation

- Formulate requirements in national law
- Appoint Issuing body
 - (seek contact with Association of Issuing Bodies))
- Use standard format for GO developed by AIB